

## Endnotes

- <1> In addition, laws such as those that prohibit or significantly restrict employment opportunities for those under 16 years of age who might otherwise choose work over school do not generally restrict individuals in the postsecondary education age range from making that choice. This means that employment may represent an attractive alternative to more education for some young people.
- <2> Chapter 6 in the NELS:88/92 report *A Profile of the American High School Senior in 1992* (June 1995) discusses in some detail parental educational attainment and parents' expectations for their children (vs. their children's own expectations) as of 1992. Thus, the current essay will not cover that same ground. However, inasmuch as parents' educational backgrounds may affect family decision-making with regard to human capital investments as well as the desired educational and occupational horizons as seen by their children, this factor should be acknowledged explicitly in any treatment of educational access. In addition, the Table Compendium that follows this essay--see section 1 and table 1-1--provides several important linkages in this regard. Those include the fact that: 1988 eighth graders whose parents completed high school or less were more likely to set their own educational expectations at that level than were those whose parents had at least a bachelor's degree; and students whose parents finished college or earned graduate degrees were more likely to expect to obtain a graduate degree themselves than those whose parents had completed high school or less. These relationships hold for both the mother's and the father's level of educational attainment.
- <3> In these analyses expectations of bachelor degree attainment was combined with expectations to attain all other higher degrees, in part because one has to obtain the former before being admitted into graduate and first professional programs. Just as completing high school is a prerequisite for beginning college, a college degree is an access variable with regard to participation in graduate school/first professional program.
- <4> With regard to expectations or any of the other dimensions on which postsecondary access and choice issues are discussed in this essay, distributions are presented by sex, race/ethnicity, socioeconomic status, and tested achievement. There is obviously overlap among variables, and to the extent that, say, socioeconomic status and ethnicity are highly correlated, distribution comparisons by race/ethnicity and by socioeconomic quartile may actually represent only one comparison not two. The table below provides cross-tabulations for race with both socioeconomic level and test quartile. As is apparent, blacks and Hispanics fall disproportionately in the bottom socioeconomic and test quartiles, while Asians and whites are over-represented in the top quartiles, relative to their presence in the overall 1988 eighth grade cohort. However, in the middle fifty percent of each distribution, there is significant representation across all racial/ethnic groups. In fact, it is only in the highest socioeconomic and test quartiles that one notices a predominance of only one of the four racial/ethnic groups--whites. In virtually all other situations, distinctions made in the text by socioeconomic status or test quartile would not be referring implicitly to any one racial/ethnic group.

**Race/ethnicity by socioeconomic status and achievement test quartile**

	Race or ethnicity as of 1994			
	Asian	White	Black	Hispanic
Total	3.8	71.6	13.5	11.1
<b>Socioeconomic status (1992)</b>				
Lowest quartile	2.8	51.3	22.3	23.6
Middle quartiles	3.5	75.1	12.9	8.5
Highest quartile	5.0	84.5	6.8	3.7
<b>Test quartile (1992)</b>				
Lowest quartile	2.7	56.9	24.1	16.3
Middle quartiles	3.6	75.0	11.3	10.1
Highest quartile	5.3	86.3	3.5	4.9

Source: NCES, National Education Longitudinal Study: 1988-9/25/95

Note: Rows may not sum to 100 percent due to rounding.

- <5> Because of the small percentage of students in vocational programs, and because our main focus in this report is academic preparation for four-year colleges, the vocational and general categories were combined.
- <6> The true dropout rate is difficult to calculate as cohort members might report "still trying" while moving to a "dropout" status. Distinguishing between these categories at this point in the development of this cohort is difficult, and for this reason we turn our focus in this essay toward those who have graduated and/or received the necessary prerequisites to participate in postsecondary education.
- <7> The quartile rankings for tested achievement and socioeconomic status were intended to produce an approximately symmetric division of the NELS:88/94 sample, with 50 percent in the middle group and 25 percent in the upper and lower tails of the distribution. The actual breakdown deviates from this intention for two reasons. First, the underlying centile scores are expressed as integer values. Therefore, any regrouping into quartiles will only be approximate. Second, the centile ranking was constructed using the NELS:88/92 Second Follow-up questionnaire weight. Thus, the analyses using the 1988 eighth grade cohort and Third Follow-up weight will also produce a degree of asymmetry when quartiles are defined. Nonetheless, the observed deviation was not dramatic, resulting in a lower quartile that is slightly more exclusive (23.0%) and an upper quartile that is slightly more inclusive (26.9%).
- <8> The application process is one important step in access to postsecondary education. Thus, variations in reported application patterns by sex, race/ethnicity, socioeconomic status, and tested achievement are one indication of possible inequality, and thus less diversity, in postsecondary educational participation than in elementary and secondary school programs. This is a concern expressed at the outset of this essay, and one to which we will return later.

- <9> Attendance in this report is measured by the variable NUMATND1 (Number of attendance spells at the first postsecondary institution attended). This was used (indirectly) as an index of whether or not a respondent ever attended a postsecondary institution, and whether there were gaps in attendance at that institution. It should not be misinterpreted as an indication of whether the respondent attended more than one institution. See the Glossary for more information on this variable.
- <10> The "at-risk" factors used in this report are the same ones used in a number of previous NCES reports (Hafner, A., Ingels, S.J., Schneider, B., and Stevenson, D. *IA Profile of the American Eighth Grader*, 1990; NCES 90-458; Green, P.J., and Scott, L.A. *"At-Risk" Eighth Graders Four Years Later*, NCES, 1995; NCES 95-380; Kaufman, P., and Bradby, D. *Characteristics of At-Risk Students in NELS:88*, 1992; NCES 92-042). These factors have been suggested by previous studies (e.g., Pallas, A., Natriello, G., and McDill, E. "The Changing Nature of the Disadvantaged Population: Current Dimensions and Future Trends," *Educational Researcher* (June-July 1989).) as increasing the risk of school failure. The factors chosen are a small subset of factors related to the risk of school failure. Kaufman and Bradby (1992) have identified others.
- <11> Green, P.J., and Scott, L.A. *"At-Risk" Eighth Graders Four Years Later*, NCES, 1995; NCES 95-380.
- <12> It should be noted that the 33 percent of 1988 eighth graders in the lowest test quartile with two or more risk factors may also be an underestimate because many in the high at-risk category did in fact drop out, and test scores are missing from a larger percentage of dropouts than any other group.
- <13> The analysis has done relatively little with the marital status variable because of uncertainties about the "in a marriage-like relationship" category. For purposes of postsecondary education decisions, which include attendance, intensity of enrollment, and even financing one's studies, it is not clear if people in the "marriage-like relationship" group, who constitute 7 percent of 1988 eighth graders overall, behave more like single or married respondents. Furthermore, inasmuch as little is known about the divorced-separated-widowed members, this was another complication with delving too deeply into the marital status variable.
- <14> The NELS:88/94 surveys were not designed to elicit substantial information on how students and their families finance higher education, or how financial aid affects enrollment decisions; understanding those considerations has been the chief goal of the National Postsecondary Student Aid Study, NPSAS:90-93. As such, this essay does not dwell on issues of tuition, financial aid, and/or the net costs of postsecondary education to students and their families.
- <15> To the extent that 1988 eighth grade cohort members listed their institutions of choice in the spring of 1992 after having filed completed applications, and in some instances after they may have already received admission results from some colleges or universities, there was undoubtedly selection bias in terms of listing; that is, it is unlikely that a high school senior would have listed as his or her first and second choice institutions to which he/she had already been denied admission.

<16> With regard to sex differences, one can presumably at first blush treat as constant racial/ethnicity, socioeconomic, and at-risk factors, since these should be largely independent of sex. This will not be the case when the review turns to the other equity variables. The only area in which one could see sex differences that matter would be in marriage rates and fertility, which, as noted in the body of the essay, is attributable to different ages at first marriage between men and women.

## **Table Compendium**



## **Section 1**

### **Education Experiences**

#### **1994 Highest Level of Expected Education**

- In 1994, 1988 eighth grade women were more likely to expect to obtain a graduate degree than were 1988 eighth grade men (Table 1-1) (37 percent to 32 percent).
- 1988 eighth graders who had one or more children by 1994 were more likely to expect only to obtain a high school diploma or less compared to those without children (Table 1-1) (28 percent to 8 percent).
- A greater percentage of 1988 eighth graders without children than those with children by 1994 expected in 1994 to obtain a graduate degree (Table 1-1) (39 percent to 12 percent).
- 1988 eighth graders who were in the highest socioeconomic quartile were more likely to expect in 1994 to obtain a graduate degree than those in the middle two and lowest socioeconomic quartiles (Table 1-1) (61 percent to 30 percent and 16 percent respectively).
- In 1994, a higher percentage of 1988 eighth grade Asians or Pacific Islanders expected to obtain graduate degrees than 1988 eighth grade Hispanics, blacks, and whites (Table 1-1) (50 percent to 25 percent, 29 percent, and 37 percent respectively).
- 1988 eighth graders who were single in 1994 were more likely to expect to obtain a graduate degree than those who were in a marriage-like relationship, were married, or were divorced, separated, or widowed in 1994 (Table 1-1) (39 percent to 16 percent, 12 percent, and 12 percent respectively).
- 1988 eighth graders whose parents finished college or earned graduate degrees were more likely in 1994 to expect to obtain a graduate degree than those whose parents completed high school or less (Table 1-1) (54 percent and 70 percent to 22 percent respectively for fathers; 56 percent and 64 percent to 24 percent respectively for mothers).
- 1988 eighth graders who attended Catholic or other (non-Catholic) private sector high schools were more likely in 1994 to expect to obtain a graduate degree than those who attended public sector high schools (Table 1-2) (59 percent and 68 percent to 34 percent).
- 1988 eighth graders in the highest 1992 test quartile were more likely in 1994 to expect to obtain a graduate degree than those in the middle two or lowest 1992 test quartiles (Table 1-2) (67 percent to 34 percent and 13 percent respectively).

**Table 1-Percentage of 1988 eighth graders with different levels of educational expectation in 1994, by selected background characteristics**

	<b>High school or less</b>	<b>Trade/ vocational</b>	<b>Some college</b>	<b>Bachelor's degree</b>	<b>Graduate degree</b>
Total	10.9	9.8	13.1	31.4	34.7
<b>Sex</b>					
Male	11.4	11.5	12.8	32.4	31.9
Female	10.4	8.1	13.5	30.5	37.5
<b>Alcohol consumption during lifetime in 1992</b>					
No occasions	13.2	6.8	10.8	31.5	37.5
One or two occasions	10.8	8.7	10.7	30.7	39.2
Three - nineteen occasions	8.0	8.4	11.3	31.8	40.5
Twenty or more occasions	11.0	10.8	14.4	32.0	31.8
<b>Cocaine or crack use during lifetime in 1992</b>					
No occasions	9.9	8.4	12.1	32.0	37.6
One or two occasions	15.0	18.3	10.8	34.0	21.9
Three to nineteen occasions	13.6	15.9	13.4	24.0	33.0
Twenty or more occasions	11.4	15.3	18.6	30.4	24.2
<b>Socioeconomic status (1992)</b>					
Lowest quartile	15.5	23.9	16.9	15.8	28.0
Middle two quartiles	9.2	10.3	15.5	34.5	30.4
Highest quartile	61.1	1.8	2.3	5.8	28.9
<b>Children</b>					
None	7.8	8.0	12.2	33.1	38.8
One or more	27.6	19.7	18.1	22.3	12.3
<b>Race/ethnicity</b>					
Asian or Pacific Islander	6.2	4.3	8.1	31.2	50.1
Hispanic regardless of race	13.6	12.4	16.6	32.6	24.9
Black not of Hispanic origin	10.1	13.3	14.0	33.4	29.2
White not of Hispanic origin	10.5	9.0	12.7	31.1	36.7
<b>Education level of father as of 1992</b>					
High school or less	16.1	13.8	16.9	31.3	22.0
Trade school after high school	5.7	10.3	11.7	37.5	34.8
College after high school	4.1	7.0	14.0	31.4	43.5
Finished college	54.3	3.6	2.9	6.5	32.7
Graduate degree	69.6	1.9	1.7	3.9	22.9
<b>Education level of mother as of 1992</b>					
High school or less	15.0	13.9	15.8	31.2	24.0
Trade school after high school	4.5	5.9	12.1	37.5	40.0
College after high school	5.2	6.8	12.4	33.1	42.5

Finished college		3.4	2.6	7.1	31.3
55.6					
Graduate degree		2.9	2.4	5.5	24.8
64.5					
<b>Current marital status</b>					
Single never married	7.9	8.3	11.7	33.0	39.1
Married	27.9	16.4	19.7	24.0	11.9
Divorced/separated/widowed	21.9	23.6	17.3	25.7	11.5
In marriage-like relationship	23.1	16.3	20.6	23.8	16.2

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Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 1-2 Percentage of 1988 eighth graders with different levels of educational expectation in 1994, by selected secondary education characteristics**

	<b>High school or less</b>	<b>Trade/ vocational</b>	<b>Some college</b>	<b>Bachelor's degree</b>	<b>Graduate degree</b>
<b>Total</b>	10.9	9.8	13.1	31.4	34.7
<b>High school sector</b>					
Public	10.4	9.9	13.6	32.3	33.8
Catholic	0.5	2.1	4.0	33.9	59.4
Other private	1.9	2.7	7.9	19.1	68.5
<b>Last high school program type</b>					
Academic	4.6	6.1	10.4	34.5	44.4
Vocational	20.4	19.1	22.5	27.3	10.8
Other	21.5	14.6	15.3	26.8	21.7
<b>Test quartile (1992)</b>					
Lowest quartile	22.9	17.1	18.0	29.1	12.9
Middle two quartiles	5.7	9.0	13.9	37.3	34.2
Highest quartile	0.7	1.2	4.3	26.7	67.1
<b>High school status (1994)</b>					
Graduate	5.7	7.8	12.2	33.8	40.5
Dropout	56.6	19.9	10.8	9.6	3.1
GED or equivalent	13.9	16.5	23.7	27.5	18.5
<b>Highest level of education expected in 1992</b>					
High school or less	44.5	19.3	14.3	16.8	5.1
Trade/vocational	18.4	26.5	23.8	24.0	7.3
Some college	9.4	13.4	24.5	39.3	13.5
Finish college	2.0	3.0	8.6	45.0	41.4
Graduate degree	1.4	2.1	4.4	23.5	68.6
<b>At risk of school failure factors (1988)</b>					
None	6.1	6.6	11.5	31.7	44.1
One	11.2	11.1	13.4	33.1	31.1
Two or more	20.6	15.3	16.4	30.0	17.7

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

## **Enrollment Status in First Postsecondary Educational Institution**

- A greater percentage of 1988 eighth graders who enrolled by 1994 in a postsecondary education institution and whose parents finished college or earned graduate degrees enrolled in their first postsecondary institution full-time by 1994 than those whose parents completed high school or less (Table 1-3) (90 percent and 92 percent compared to 80 percent respectively for fathers; 91 percent and 90 percent compared to 83 percent respectively for mothers).
- 1988 eighth graders who enrolled by 1994 in a postsecondary education institution and were in the lowest 1992 test quartile were less likely to have enrolled in their first postsecondary institution full-time by 1994 than those in the middle two and highest 1992 test quartiles (Table 1-4) (76 percent compared to 85 percent and 93 percent respectively).
- A higher percentage of 1988 eighth graders who enrolled by 1994 in a postsecondary education institution and who, in 1992, expected to obtain a baccalaureate or a graduate degree enrolled in their first postsecondary education institution full-time by 1994 than those who expected to complete trade or vocational education, or to complete some college (Table 1-4) (87 percent and 93 percent compared to 71 percent and 77 percent respectively).
- 1988 eighth graders who, by 1992, had used crack or cocaine either on one or two occasions or from three to nineteen occasions during their lifetime were more likely in 1994 to report no postsecondary education enrollment than those who had never used crack or cocaine (Table 1-5) (64 percent and 52 percent compared to 33 percent respectively).
- 1988 eighth graders with parents whose education did not go beyond high school were more likely not to have enrolled in a postsecondary education institution by 1994 than those whose parents finished college or earned a graduate degree (Table 1-5) (50 percent compared to 16 percent and 10 percent respectively for fathers; 48 percent compared to 17 percent and 14 percent respectively for mothers).

**Table 1-3 Percentage of 1988 eighth graders with postsecondary enrollment by 1994 with different enrollment statuses by 1994 at first postsecondary education institution, by selected background characteristics**

	<b>Full-time</b>	<b>Half-time</b>	<b>Less than half-time</b>
Total	85.1	9.2	5.7
<b>Sex</b>			
Male	84.7	8.8	6.5
Female	85.5	9.5	5.0
<b>Race/ethnicity</b>			
Asian or Pacific Islander	86.2	9.1	4.8
Hispanic regardless of race	78.9	13.6	7.5
Black not of Hispanic origin	87.6	9.6	2.8
White not of Hispanic origin	85.5	8.5	6.0
<b>Current marital status</b>			
Single never married	86.7	8.3	5.0
Married	66.8	18.6	14.6
Divorced/separated/widowed	54.4	21.6	24.0
In marriage-like relationship	75.6	16.4	8.0
<b>Alcohol consumption during lifetime in 1992</b>			
No occasions	88.8	7.7	3.5
One or two occasions	86.1	9.5	4.4
Three to nineteen occasions	87.2	7.8	4.9
Twenty or more occasions	83.4	10.0	6.6
<b>Cocaine or crack use during lifetime in 1992</b>			
No occasions	86.3	8.6	5.2
One or two occasions	74.9	13.3	11.8
Three to nineteen occasions	77.1	14.4	8.5
Twenty or more occasions	82.2	11.0	6.8
<b>Socioeconomic status (1992)</b>			
Lowest quartile	82.3	11.3	6.4
Middle two quartiles	82.2	10.9	6.9
Highest quartile	90.4	5.9	3.7
<b>Children</b>			
None	86.2	8.4	5.3
One or more	69.8	19.6	10.5
<b>Education level of father as of 1992</b>			
High school or less	80.5	11.8	7.7
Trade school after high school	83.4	10.8	5.8
College after high school	84.6	11.3	4.1
Finished college	90.2	5.1	4.8
Graduate degree	92.2	5.2	2.7
<b>Education level of mother as of 1992</b>			
High school or less	82.6	10.6	6.8
Trade school after high school	83.7	10.1	6.2
College after high school	83.9	11.4	4.7
Finished college	90.6	4.9	4.6
Graduate degree	90.3	6.6	3.1

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 1-4 Percentage of 1988 eighth graders with postsecondary enrollment by 1994 with different enrollment statuses by 1994 at first postsecondary education institution, by selected secondary education characteristics**

	Full-time	Half-time	Less than half-time
Total	85.1	9.2	5.7
<b>High school sector</b>			
Public	85.1	9.1	5.8
Catholic	90.8	6.1	3.1
Other private	88.8	9.7	1.5
<b>Last high school program type</b>			
Academic	87.7	8.0	4.3
Vocational	71.3	17.7	11.0
Other	79.5	12.0	8.5
<b>Test quartile (1992)</b>			
Lowest quartile	75.7	17.4	7.0
Middle two quartiles	84.8	9.5	5.7
Highest quartile	93.4	3.9	2.7
<b>High school status (1994)</b>			
Graduate	86.2	8.7	5.1
Dropout	64.3	12.0	23.7
GED or equivalent	64.7	18.9	16.4
<b>Highest level of education expected in 1992</b>			
High school or less	63.8	15.6	20.6
Trade/vocational	70.8	17.1	12.1
Some college	76.8	14.4	8.8
Finish college	86.8	8.5	4.6
Graduate degree	92.7	4.9	2.3
<b>At risk of school failure factors (1988)</b>			
None	87.1	8.4	4.6
One	83.4	9.9	6.7
Two or more	81.0	10.9	8.1

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 1-5 Percentage of 1988 eighth graders reporting in 1994 different numbers of postsecondary attendance spells, by selected background characteristics**

		None	One	Two	Three or more
Total	37.3	59.2	3.4	0.2	
<b>Sex</b>					
Male		40.4	56.0	3.4	0.2
Female		34.2	62.4	3.3	0.1
<b>Race/ethnicity</b>					
Asian or Pacific Islander		19.5	77.3	3.1	0.2
Hispanic regardless of race		48.8	46.5	4.4	0.4
Black not of Hispanic origin		47.1	49.4	3.4	0.2
White not of Hispanic origin		34.0	62.7	3.2	0.1
<b>Current marital status</b>					
Single never married		31.0	65.3	3.5	0.2
Married		67.2	29.9	2.8	0.1
Divorced/separated/widowed		70.5	25.3	4.3	0.0
In marriage-like relationship		66.1	31.7	2.2	0.1
<b>Alcohol consumption during lifetime in 1992</b>					
No occasions		37.5	60.4	2.1	0.0
One or two occasions		33.4	63.6	2.9	0.1
Three to nineteen occasions		30.9	65.9	3.2	0.1
Twenty or more occasions		38.3	57.7	3.8	0.2
<b>Cocaine or crack use during lifetime in 1992</b>					
No occasions		33.0	63.6	3.3	0.1
One or two occasions		63.7	34.6	1.5	0.2
Three to nineteen occasions		51.8	43.5	4.4	0.3
Twenty or more occasions		47.7	47.2	5.1	0.0
<b>Socioeconomic status (1992)</b>					
Lowest quartile		64.0	33.8	2.1	0.2
Middle two quartiles		37.0	59.0	3.8	0.2
Highest quartile		11.7	84.4	3.8	0.2
<b>Children</b>					
None		30.4	66.0	3.5	0.2
One or more		73.7	23.2	3.0	0.1
<b>Education level of father as of 1992</b>					
High school or less		49.9	47.0	3.0	0.1
Trade school after high school		28.4	66.7	4.5	0.4
College after high school		25.4	71.5	2.9	0.3
Finished college		16.1	78.8	4.8	0.3
Graduate degree		10.2	86.4	3.3	0.1
<b>Education level of mother as of 1992</b>					
High school or less		47.5	48.9	3.6	0.1
Trade school after high school		24.5	71.3	3.8	0.4
College after high school		25.5	71.3	3.0	0.2
Finished college		17.0	80.0	2.8	0.2
Graduate degree		14.3	82.1	3.4	0.2

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

## **Continuity of Enrollment in First Postsecondary Educational Institution**

- 1988 eighth graders who were single in 1994 were more likely to be still enrolled in their first postsecondary institution than those who were married, were in a marriage-like relationship, or were divorced, separated, or widowed in 1994 (Table 1-6) (63 percent compared to 32 percent, 31 percent, and 19 percent respectively).
- 1988 eighth graders who, by 1992, had never consumed alcohol, had consumed it on one or two occasions, or had consumed it on three to nineteen occasions were more likely to be still enrolled in their first postsecondary education institution than those who had consumed alcohol on twenty or more occasions (Table 1-6) (66 percent, 67 percent, and 65 percent compared to 55 percent respectively).
- 1988 eighth graders whose parents finished college or earned a graduate degree were more likely to be still enrolled in their first postsecondary education institution in 1994 than those whose parents finished high school or less (Table 1-6) (69 percent and 72 percent compared to 54 percent respectively for fathers; 68 percent and 69 percent compared to 54 percent respectively for mothers).
- A greater percentage of 1988 eighth graders in the highest 1992 test quartile were still enrolled in their first postsecondary institution in 1994 than those in the lowest or middle two 1992 test quartiles (Table 1-7) (74 percent compared to 45 percent and 60 percent respectively).
- 1988 eighth graders who were high school graduates by 1994 were more likely to be still enrolled in their first postsecondary institution in 1994 than those who had a GED or equivalent by 1994 (Table 1-7) (62 percent compared to 23 percent).

**Table 1-6 Percentage of 1988 eighth graders with postsecondary enrollment by 1994 still enrolled in first postsecondary education institution in 1994, by selected background characteristics**

	Percentage still enrolled	
Total	60.3	
<b>Sex</b>		
Male	59.0	
Female	61.4	
<b>Race/ethnicity</b>		
Asian or Pacific Islander	73.2	
Hispanic regardless of race	52.2	
Black not of Hispanic origin	52.0	
White not of Hispanic origin	61.8	
<b>Current marital status</b>		
Single never married	63.3	
Married	31.6	
Divorced/separated/widowed	19.2	
In marriage-like relationship	30.8	
<b>Alcohol consumption during lifetime in 1992</b>		
No occasions	66.4	
One or two occasions	66.9	
Three to nineteen occasions	65.3	
Twenty or more occasions	55.2	
<b>Cocaine or crack use during lifetime in 1992</b>		
No occasions	62.8	
One or two occasions	42.1	
Three to nineteen occasions	41.7	
Twenty or more occasions	38.9	
<b>Socioeconomic status (1992)</b>		
Lowest quartile		46.7
Middle two quartiles	57.0	
Highest quartile		69.9
<b>Children</b>		
None	62.3	
One or more	30.9	
<b>Education level of father as of 1992</b>		
High school or less	53.5	
Trade school after high school	58.8	
College after high school	60.1	
Finished college		68.6
Graduate degree		72.0
<b>Education level of mother as of 1992</b>		
High school or less	53.6	
Trade school after high school	59.7	
College after high school	64.3	

Finished college	68.3
Graduate degree	68.9

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Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

**Table 1-7 Percentage of 1988 eighth graders with postsecondary enrollment by 1994 still enrolled in first postsecondary education institution in 1994, by selected secondary education characteristics**

	Percentage still enrolled
Total	60.3
<b>High school sector</b>	
Public	60.2
Catholic	70.9
Other private	66.8
<b>Last high school program type</b>	
Academic	64.7
Vocational	38.6
Other	49.9
<b>Test quartile (1992)</b>	
Lowest quartile	45.2
Middle two quartiles	60.3
Highest quartile	74.1
<b>High school status (1994)</b>	
Graduate	62.3
Dropout	9.0
GED or equivalent	23.1
<b>Highest level of education expected in 1992</b>	
High school or less	33.1
Trade/vocational	38.0
Some college	47.8
Finish college	63.7
Graduate degree	69.3
<b>At risk of school failure factors (1988)</b>	
None	65.3
One	55.1
Two or more	45.8

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

## **Section 2**

### **Labor Force Participation and Earnings**

The analyses reported in this section represent one of three populations, as noted below and in the tables: 1) 1988 eighth graders in the labor force in 1993 (including sample members employed for one or more months in 1993 who reported that they were not students or that they were students but were primarily employed in 1993 and sample members who were unemployed for all of 1993 but were seeking work; 2) 1988 eighth graders employed in 1993 (sample members who were in the labor force in 1993, excluding those who were unemployed for all of 1993); and 3) all 1988 eighth graders.

#### **Employment, Unemployment, and Earnings**

Of the 1988 eighth graders who were employed for one or more months in 1993:

- Men's 1993 average total earnings exceeded those of women (Table 2-1) (\$10,194 to \$6,723).
- Those in the lowest socioeconomic quartile were unemployed longer in 1993 than those in the middle two socioeconomic quartiles (Table 2-1) (1.8 compared to 1.2 months).
- Blacks were unemployed longer in 1993 than 1988 eighth grade whites, Asians or Pacific Islanders, and Hispanics (Table 2-1) (3.2 to 0.9, 1.3, and 1.8 months respectively).
- Those in the lowest and middle two 1992 socioeconomic quartiles held fewer jobs in 1993 than those in the highest test quartile (Table 2-1) (1.6 and 1.6 to 1.9 respectively).
- Those in the highest 1992 test quartile were unemployed for fewer months in 1993 than those in the lowest or middle two test quartiles (Table 2-2) (0.6 to 2.0 and 1.0 respectively).
- Those who expected, in 1992, to obtain a baccalaureate degree were unemployed for fewer months in 1993 than those who expected to obtain a high school diploma or less (Table 2-2) (1.1 to 2.1 months).

Of the 1988 eighth graders who were in the labor force in 1993:

- Those in the lowest socioeconomic quartile were more likely to be unemployed from six to twelve months in 1993 than those in the middle two socioeconomic quartiles (Table 2-3) (14 percent to 9 percent).
- Blacks were more likely to be unemployed from six to twelve months in 1993 than whites, Asian/Pacific Islanders, or Hispanics (Table 2-3) (27 percent to 7 percent, 10 percent, and 14 percent respectively).
- A greater percentage of those in the lowest 1992 test quartile were unemployed from six

to twelve months in 1993 than those in the middle two or highest test quartiles (Table 2-4) (17 percent to 8 percent and 4 percent respectively).

- Those who were high school dropouts by 1994 were more likely to be unemployed from six to twelve months in 1993 than those who were high school graduates (Table 2-4) (18 percent to 8 percent).
- A higher percentage of those with two or more at-risk of school failure factors were unemployed from six to twelve months in 1993 than those with no at-risk factors or with one at-risk factor (Table 2-4) (15 percent to 7 percent and 12 percent respectively).

The results reported below are based on the full eighth grade cohort, without selection for 1993 labor force status.

- A smaller percentage of 1988 eighth grade men than women were employed for only one to five months in 1993 (4 percent to 6 percent), while a smaller percentage of 1988 eighth grade women than men were employed for six or more months in 1993 (Table 2-5) (24 percent to 36 percent).
- 1988 eighth grade blacks were more likely to be unemployed for all of 1993 than were Asian/Pacific Islanders, Hispanics, or whites (Table 2-5) (8 percent to 1 percent, 3 percent, and 1 percent respectively).
- 1988 eighth graders who had one child or more by 1994 were more likely to be unemployed for the whole year in 1993 than those without children (Table 2-5) (8 percent to 2 percent).
- A higher percentage of 1988 eighth graders who attended public sector high schools were unemployed for all of 1993 than those who attended other private high schools (Table 2-6) (2 percent to 1 percent).
- 1988 eighth graders who participated in vocational high school programs were more likely to be employed for six or more months in 1993 than those who participated in traditional academic or other high school programs (Table 2-6) (55 percent to 21 percent and 42 percent respectively).
- A greater percentage of 1988 eighth graders who, in 1992, expected to obtain a high school diploma or less were unemployed for all of 1993 than those who expected to obtain a baccalaureate or graduate degree (Table 2-6) (8 percent to 1 percent and 1 percent respectively).

**Table 2-1 Average number of jobs held, average earnings, and average number of months unemployed in 1993 for 1988 eighth graders who were employed in 1993, by selected background characteristics**

	Average jobs held in 1993	Average earnings from jobs in 1993	Average months unemployed in 1993	
Total	1.6	\$8,728	1.5	
<b>Sex</b>				
Male	1.6	10,194	1.3	
Female	1.6	6,723	1.7	
<b>Alcohol consumption during lifetime in 1992</b>				
No occasions	1.5	7,609	2.2	
One or two occasions	1.5	7,450	1.8	
Three to nineteen occasions	1.6	8,337	1.3	
Twenty or more occasions	1.7	9,150	1.4	
<b>Cocaine or crack use during lifetime in 1992</b>				
No occasions	1.6	8,528	1.5	
One or two occasions	2.1	8,921	1.5	
Three to nineteen occasions	1.7	7,861	1.4	
Twenty or more occasions	1.6	9,416	1.5	
<b>Socioeconomic status (1992)</b>				
Lowest quartile		1.6	8,182	1.8
Middle two quartiles	1.6	9,042	1.2	
Highest quartile		1.9	8,926	1.4
<b>Children</b>				
None	1.6	9,011	1.2	
One or more	1.6	7,698	2.4	
<b>Race/ethnicity</b>				
Asian or Pacific Islander	1.6	8,205	1.3	
Hispanic regardless of race	1.5	8,133	1.8	
Black not of Hispanic origin	1.5	6,674	3.2	
White not of Hispanic origin	1.7	9,210	0.9	
<b>Education level of father as of 1992</b>				
High school or less	1.6	8,597	1.3	
Trade school after high school	1.7	9,303	0.9	
College after high school	1.7	8,981	1.6	
Finished college		1.8	9,261	1.4
Graduate degree		1.8	7,924	1.3
<b>Education level of mother as of 1992</b>				
High school or less	1.6	8,826	1.3	
Trade school after high school	1.7	8,406	1.2	
College after high school	1.9	8,363	1.9	
Finished college		1.6	9,245	0.9
Graduate degree		1.8	9,038	2.3
<b>Current marital status</b>				

Single never married	1.6	8,790	1.5
Married	1.6	8,770	1.1
Divorced/separated/widowed	2.5	8,873	1.0
In marriage-like relationship	1.7	8,210	2.0

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Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993 or were not students and were employed one or more months during 1993.

**Table 2-2 Average number of jobs held, average earnings, and average number of months unemployed in 1993 for 1988 eighth graders who were employed in 1993, by selected secondary education characteristics**

	Average jobs held in 1993	Average earnings from jobs in 1993	Average months unemployed in 1993
Total	1.6	\$8,278	1.5
<b>High school sector</b>			
Public	1.6	8,786	1.4
Catholic	1.7	8,163	1.2
Other private	1.6	8,825	0.9
<b>Last high school program type</b>			
Academic	1.6	8,454	1.0
Vocational	1.5	9,933	1.3
Other	1.6	8,287	2.0
<b>Type of first institution</b>			
Private for-profit	1.8	6,264	1.3
Private not-for-profit less than 4-year	low n	low n	low n
Public less than 2-year	1.6	low n	0.8
Public 2-year	1.7	8,727	0.7
Private not-for-profit 4-year	1.9	6,586	0.9
Public 4-year	2.0	7,932	0.9
<b>Test quartile (1992)</b>			
Lowest quartile	1.5	8,340	2.0
Middle two quartiles	1.7	8,638	1.0
Highest quartile	1.9	8,080	0.6
<b>High school status (1994)</b>			
Graduate	1.6	8,882	1.0
Dropout	1.6	8,245	2.2
GED or equivalent	1.7	9,743	2.1
<b>Highest level of education expected in 1992</b>			
High school or less	1.6	9,369	2.1
Trade/vocational	1.5	9,270	1.5
Some college	1.6	8,618	1.3
Finish college	1.7	8,165	1.1
Graduate degree	1.8	7,194	1.4

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: "low n" indicates too few cases for reliable estimate.

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993 or were not students and were employed one or more months during 1993.

**Table 2-3 Percentage of 1988 eighth graders in the labor force in 1993<a> unemployed for different numbers of months in 1993, by selected background characteristics**

	None	One month	Two months	Three to five months	Six to twelve months
<b>Total</b>	76.9	2.5	3.1	6.0	11.6
<b>Sex</b>					
Male	78.7	3.0	2.6	5.8	9.9
Female	74.6	1.9	3.6	6.2	13.6
<b>Alcohol consumption during lifetime in 1992</b>					
No occasions	71.1	1.6	2.5	8.0	16.9
One or two occasions	73.9	2.5	3.2	5.8	14.6
Three to nineteen occasions	79.8	1.5	3.1	4.7	10.9
Twenty or more occasions	77.5	2.7	3.0	6.2	10.7
<b>Cocaine or crack use during lifetime in 1992</b>					
No occasions	77.5	2.2	2.9	5.7	11.7
One or two occasions	77.1	2.3	4.1	4.9	11.7
Three to nineteen occasions	73.0	0.4	5.8	10.7	10.1
Twenty or more occasions	72.9	3.3	5.6	6.5	11.7
<b>Socioeconomic status (1992)</b>					
Lowest quartile		71.9	3.0	3.6	7.2 14.3
Middle two quartiles	80.2	2.5	2.5	5.5	9.4
Highest quartile		79.0	1.7	3.9	4.5 10.9
<b>Children</b>					
None	79.7	2.4	3.0	5.8	9.1
One or more	67.5	2.9	3.2	6.7	19.8
<b>Race/ethnicity</b>					
Asian or Pacific Islander	80.4	2.0	4.5	3.2	9.9
Hispanic regardless of race	72.6	3.5	3.2	6.2	14.5
Black not of Hispanic origin	58.8	2.5	3.0	8.9	26.8
White not of Hispanic origin	82.3	2.5	2.7	5.5	7.0
<b>Education level of father as of 1992</b>					
High school or less	77.6	2.8	3.0	6.3	10.4
Trade school after high school	83.5	2.0	2.1	5.2	7.1
College after high school	76.3	2.3	3.9	5.1	12.4
Finished college		79.9	2.3	2.7	3.9 11.2
Graduate degree		83.1	0.0	0.5	5.2 11.1
<b>Education level of mother as of 1992</b>					
High school or less	77.6	2.7	3.2	6.6	9.9
Trade school after high school	78.9	2.0	4.5	4.8	9.8
College after high school	77.1	1.3	2.0	4.4	15.2
Finished college		81.4	2.3	3.8	4.8 7.7
Graduate degree		74.1	2.8	0.3	2.2 20.7
<b>Current marital status</b>					
Single never married	77.0	2.4	3.0	6.1	11.5

Married	79.1	3.7	3.3	5.6	8.2
Divorced/separated/widowed	78.9	4.3	4.0	4.4	8.4
In marriage-like relationship	73.1	1.1	3.1	6.0	16.7

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993, were not students and were employed one or more months during 1993, or were unemployed for all of 1993 and were seeking work.

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**Table 2-4 Percentage of 1988 eighth graders in the labor force in 1993<a> unemployed for different numbers of months in 1993, by selected secondary education and labor force characteristics**

	None	One month	Two months	Three to five months	Six to twelve months
Total	76.9	2.5	3.1	6.0	11.6
<b>High school sector</b>					
Public		78.5	2.1	3.1	5.7 10.6
Catholic	84.4	1.2	0.0	5.1	9.3
Other private	82.9	1.9	7.3	1.0	6.8
<b>Last high school program type</b>					
Academic	83.0	1.6	2.8	5.5	7.1
Vocational	80.3	2.3	1.8	3.8	11.8
Other	68.9	3.3	4.1	6.8	16.9
<b>Industry of longest held 1993 job</b>					
Agriculture or forestry	75.8	5.5	2.9	5.7	10.1
Construction	80.7	3.4	4.1	6.0	5.8
Manufacture of durable goods	77.5	1.5	5.0	7.5	8.5
Manufacture of nondurable goods	81.6	1.8	1.8	9.4	5.5
Transportation/communications/utilities	80.9	4.2	3.2	5.0	6.8
Wholesale trade		87.2	0.4	1.9	4.5 6.0
Retail trade	81.7	1.9	3.1	5.7	7.6
Finance/insurance/real estate	83.4	4.1	4.1	5.3	3.1
Business and repair services	77.8	3.7	3.0	8.4	7.1
Personal services	80.3	4.0	6.7	2.2	6.8
Entertainment or recreation	78.7	2.8	5.2	9.7	3.5
Professional and related services	81.6	4.1	1.1	7.8	5.4
Public administration	77.1	0.0	3.6	12.4	6.9
Military	95.1	1.5	1.1	1.2	1.0
<b>Test quartile (1992)</b>					
Lowest quartile		70.6	2.8	4.2	5.5 17.0
Middle two quartiles	82.4	1.8	2.8	5.2	7.9
Highest quartile		89.3	1.0	2.0	4.1 3.6
<b>High school status (1994)</b>					
Graduate	82.2	2.1	2.5	5.3	7.8
Dropout	67.5	2.6	4.4	7.7	17.8
GED or equivalent	67.9	3.0	4.3	7.9	16.8
<b>At risk of school failure factors (1988)</b>					
None	82.8	1.8	2.5	5.7	7.2
One	77.1	3.6	2.7	5.1	11.6
Two or more	71.2	2.8	3.3	7.5	15.2

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993, were not students and were employed one or more months during 1993, or were unemployed for all of 1993 and were seeking work.

**Table 2-5 Percentage of 1988 eighth graders with different 1993 postsecondary education attendance and employment statuses, by selected background characteristics**

	-----Postsecondary education student-----				-----Non-student-----				
	Traditional postsecondary education student	Part-time student not employed	Primarily postsecondary education student	Primarily employed	Employed 6 months or more	Employed 1 to 5 months	Unemployed for the whole year	Out of work force	
Total	37.1	2.5	8.1	9.9	30.2	4.9	2.6	4.7	
<b>Sex</b>									
Male	34.0	2.2	8.6	10.3	36.0	3.9	2.2	2.8	
Female	40.3	2.8	7.6	9.5	24.4	5.9	2.9	6.6	
<b>Alcohol consumption during lifetime in 1992</b>									
No occasions	40.3	3.3	9.5	6.0	23.0	4.9	4.1	8.9	
One or two occasions	43.1	2.5	9.3	7.5	24.3	4.6	3.2	5.6	
Three to nineteen occasions	44.3	1.7	7.9	10.4	26.2	3.8	2.0	3.7	
Twenty or more occasions	43.8	2.8	8.2	11.4	32.7	5.2	2.5	3.3	
<b>Cocaine or crack use during lifetime in 1992</b>									
No occasions	41.7	2.6	8.5	9.6	26.6	4.5	2.5	4.0	
One or two occasions	12.6	1.1	6.3	9.6	47.6	5.7	4.5	12.6	
Three to nineteen occasions	15.0	3.2	13.6	12.4	36.4	6.2	2.5	10.9	
Twenty or more occasions	16.4	3.2	7.8	17.5	40.9	6.2	4.3	3.8	
<b>Socioeconomic status (1992)</b>									
Lowest quartile		13.9	2.8	6.3	7.7	47.2	8.1	4.2	9.7
Middle two quartiles	34.1	2.1	8.4	12.5	32.1	4.9	2.0	3.9	
Highest quartile		65.4	2.9	9.3	6.8	10.7	1.7	1.7	1.3
<b>Children</b>									
None	43.3	2.1	8.9	10.5	28.1	3.3	1.6	2.1	
One or more	3.7	4.4	4.0	6.9	41.5	13.1	7.7	18.8	
<b>Race/ethnicity</b>									
Asian or Pacific Islander	55.9	3.3	9.0	8.7	16.5	2.7	1.4	2.7	
Hispanic regardless of race	23.5	2.8	9.1	10.5	34.6	7.7	3.0	8.8	
Black not of Hispanic origin	26.9	4.1	9.0	8.1	26.6	8.8	8.2	8.4	
White not of Hispanic origin	40.7	2.1	7.8	10.3	30.6	3.8	1.2	3.4	
<b>Education level of father as of 1992</b>									
High school or less	23.4	2.3	6.7	11.2	41.7	6.0	2.7	5.9	
Trade school	41.5	2.3	10.2	12.1	27.0	2.9	1.5	2.6	
Some college	46.4	3.6	11.3	8.5	21.3	4.1	2.7	2.2	
Finished college		60.4	2.1	9.4	8.9	13.5	2.6	2.0	1.1
Graduate degree		69.7	2.1	9.5	5.2	9.4	1.5	1.0	1.6
<b>Education level of mother as of 1992</b>									
High school or less	25.6	2.3	7.1	11.3	39.5	5.8	2.9	5.6	
Trade school	45.1	2.1	10.2	12.1	22.9	4.0	1.2	2.4	
Some college	46.7	3.1	11.2	9.2	19.5	4.6	3.7	2.0	
Finished college		62.0	1.8	8.8	6.8	15.3	2.8	0.6	1.8

Graduate degree	63.9	4.6	9.5	5.0	11.1	1.1	3.3	1.5
<b>Current marital status</b>								
Single never married	43.3	2.4	8.9	9.6	26.1	4.1	2.2	3.4
Married	6.3	3.1	4.3	10.7	50.0	9.1	3.1	13.3
Divorced/separated/widowed	1.8	4.6	3.8	10.2	61.3	9.1	2.5	6.8
In marriage-like relationship	9.4	2.0	4.7	12.3	48.5	8.1	6.3	8.9

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 2-6 Percentage of 1988 eighth graders with different 1993 postsecondary education attendance and employment statuses, by selected secondary and postsecondary education characteristics**

	-----Postsecondary education student-----				-----Non-student-----				
	Traditional postsecondary education student	Part-time student not employed	Primarily postsecondary education student	Primarily employed	Employed 6 months or more	Employed 1 to 5 months	Unemployed for the whole year	Out of work force	
Total	37.1	2.5	8.1	9.9	30.2	4.9	2.6	4.7	
<b>High school sector</b>									
Public	37.1	2.3	8.3	10.4	30.7	4.7	2.3	4.3	
Catholic	67.1	3.2	9.7	7.9	8.7	1.1	1.3	1.0	
Other private	61.2	6.7	10.6	6.5	9.0	2.9	0.7	2.4	
<b>Last high school program type</b>									
Academic	51.0	2.6	9.4	10.2	20.6	2.6	1.2	2.5	
Vocational	8.7	2.0	5.2	12.0	55.3	6.3	4.3	6.3	
Other	17.4	2.4	6.5	8.8	42.4	9.1	5.2	8.2	
<b>Type of first institution</b>									
Private for-profit	18.0	10.8	28.0	25.8	12.3	3.0	0.4	1.7	
Private not-for-profit less than 4-year		45.7	3.4	11.9	26.0	7.8	4.2	0.0	1.2
Public less than 2-year	7.0	9.1	40.5	13.3	24.3	2.8	0.0	3.0	
Public 2-year	40.6	4.6	16.6	25.4	10.2	1.3	0.5	0.8	
Private not-for-profit 4-year	84.8	2.0	7.1	3.6	1.8	0.4	0.1	0.1	
Public 4-year	75.8	2.3	9.8	8.5	2.5	0.5	0.3	0.3	
<b>Test quartile (1992)</b>									
Lowest quartile		14.4	2.5	6.3	9.3	44.9	8.3	5.7	8.6
Middle two quartiles	40.0	2.7	9.9	11.6	27.7	3.2	1.4	3.6	
Highest quartile		73.2	2.0	6.9	7.1	8.5	1.4	0.3	0.6
<b>High school status (1994)</b>									
Graduate	45.3	2.5	9.4	11.1	25.1	3.0	1.1	2.4	
Dropout	0.2	0.6	1.9	2.0	57.2	12.7	7.5	17.9	
GED or equivalent	2.9	4.8	3.7	8.9	51.5	9.0	8.1	11.2	

**Highest level of education expected in 1992**

High school or less	1.3	1.0	2.5	2.6	62.5	9.8	7.7	12.6	
Trade/vocational	7.9	1.7	6.7	9.9	52.8	7.8	4.9	8.3	
Some college	19.4	2.4	7.5	15.4	39.4	6.6	3.0	6.3	
Finish college	52.1	3.3	11.2	11.5	16.4	2.4	1.3	1.9	
Graduate degree		66.3	2.6	8.5	7.4	10.6	2.3	1.1	1.2

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Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

## 1993 Employment Conditions and Employee Fringe Benefits

Of the 1988 eighth graders who were employed in 1993:

- Men were more likely than women to report receiving employer-provided medical benefits (52 percent to 38 percent), dental benefits (36 percent to 27 percent), life insurance (38 percent to 26 percent), sick days with pay (39 percent to 32 percent), paid vacation (53 percent to 46 percent), pension plans (32 percent to 21 percent), and childcare assistance (13 percent to 7 percent) from their longest held job in 1993 (Table 2-7).
- Whites and Hispanics were more likely than blacks to receive employer-provided medical benefits in their longest held job in 1993 (Table 2-7) (47 percent and 45 percent to 35 percent respectively).
- A greater percentage of whites than Hispanics and blacks received employer-provided unpaid leave to care for others in their longest held job in 1993 (Table 2-7) (45 percent to 34 percent and 27 percent respectively).
- Those with two or more at-risk of school failure factors were less likely to receive employer-provided unpaid leave to care for others in their longest held job in 1993 than those with no at-risk factors (Table 2-7) (35 percent to 45 percent).

**Table 2-7 Percentage of 1988 eighth graders employed in 1993<a> reporting different fringe benefits received from longest held job in 1993, by selected background characteristics**

	Employer provided medical benefits	Employer provided dental benefits	Employer provided life insurance	Employer provided sick days with pay	Employer provided paid vacation	Employer provided paid maternity or paternity leave	Employer provided unpaid maternity or paternity leave	Employer provided pension plan	Employer provided childcare assistance	Employer provided unpaid leave to care for others	
Total	45.6	31.8	32.7	36.2	50.2	27.4	36.8	27.2	10.4	40.9	
<b>Sex</b>											
Male	51.5	35.8	37.9	39.4	53.2	27.0	32.5	32.1	13.0	40.8	
Female	38.0	26.8	26.2	32.1	46.4	27.8	42.4	20.8	7.1	41.1	
<b>Socioeconomic status (1992)</b>											
Lowest quartile		46.7	30.7	33.3	37.1	53.0	26.9	34.4	27.1	10.4	36.6
Middle two quartiles	46.2	33.2	33.6	36.4	50.3	27.9	39.4	28.0	10.5	43.8	
Highest quartile		39.1	29.8	27.5	33.0	41.3	26.7	32.6	22.8	11.1	41.5
<b>Children</b>											
None	47.6	33.6	33.5	37.6	51.4	29.5	36.2	28.2	11.3	42.2	
One or more	38.3	25.4	29.6	31.1	46.0	19.9	39.2	23.6	7.3	36.8	
<b>Race/ethnicity</b>											
Asian or Pacific Islander	52.3	43.9	33.9	40.2	55.5	26.7	27.3	23.9	12.4	38.9	
Hispanic regardless of race	45.0	30.7	30.0	37.1	49.8	27.8	32.9	24.6	7.5	33.9	
Black not of Hispanic origin	35.0	25.5	27.1	31.8	42.2	24.2	29.5	22.4	11.6	26.9	
White not of Hispanic origin	47.3	32.9	33.8	36.6	51.4	27.8	38.8	28.5	10.7	45.1	
<b>Current marital status</b>											
Single never married	45.2	32.1	32.1	36.7	49.6	28.0	34.8	26.7	11.0	40.0	
Married	49.3	34.4	39.3	36.7	55.2	28.3	45.6	28.8	9.3	45.5	
Divorced/separated/widowed	58.1	25.3	47.8	45.2	62.3	16.7	26.8	44.3	10.1	25.1	
In marriage-like relationship	41.3	27.9	25.3	30.1	45.6	24.0	40.7	24.5	7.9	44.1	
<b>At risk of school failure factors (1988)</b>											
None	46.1	33.3	33.9	37.9	50.1	29.5	38.2	27.9	11.0	45.0	
One	44.9	31.2	32.2	35.2	49.9	27.8	38.0	26.3	10.8	40.4	
Two or more	44.5	29.6	31.9	34.8	51.2	24.9	35.3	27.6	9.1	35.4	

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993 or were not students and were employed one or more months during 1993.

## Tuition Assistance, Job Training, and Job Satisfaction

Of the 1988 eighth graders employed in 1993:

- Blacks were more likely than whites to report receiving on-site formal training at their longest held job in 1993 (86 percent to 70 percent) (Table 2-8).
- A higher percentage of whites than blacks reported receiving employer-provided tuition assistance at their longest held job in 1993 (Table 2-8) (27 percent to 12 percent).
- Men reported spending more weeks and more hours per week attending job training for their longest held job in 1993 than 1988 eighth grade women (Table 2-9) (12 weeks to 6 weeks; 29 hours per week to 16 hours per week).
- A greater percentage of men than women reported being very satisfied with opportunities for advancement in their longest held job in 1993 (Table 2-10) (32 percent to 27 percent).
- Whites were more likely than blacks to be very satisfied with job security (46 percent to 31 percent) and with working conditions (44 percent to 33 percent) in their longest held job in 1993. (Table 2-10).
- A higher percentage of those in the middle two socioeconomic quartiles than those in the lowest quartile were very satisfied with job security in their longest held job in 1993 (Table 2-10) (46 percent to 39 percent).
- Those who were married by 1994 were more likely to be very satisfied with the opportunity to use their education in their longest held job in 1993 than those who were never married, were divorced, separated or widowed, or were in a marriage-like relationship (Table 2-10) (35 percent to 27 percent, 16 percent, and 23 percent respectively).
- A greater percentage of those who were married by 1994 were very satisfied with job security in their longest held job in 1993 than those who had never married or were in a marriage-like relationship in 1994 (Table 2-10) (51 percent to 42 percent and 36 percent respectively).

**Table 2-8 Percentage of 1988 eighth graders employed in 1993<a> receiving employer-provided tuition assistance and job training benefits in 1993, by selected background characteristics**

	<b>On-site formal training received</b>	<b>Informal on-the-job training received</b>	<b>Off-site formal training received</b>	<b>Employer-provided tuition assistance received</b>
Total	72.1	55.1	42.2	23.4
<b>Sex</b>				
Male	72.8	54.3	42.7	21.0
Female	71.1	56.3	41.4	26.9
<b>Socioeconomic status (1992)</b>				
Lowest quartile	78.2	49.7	36.4	19.0
Middle two quartiles	67.3	56.7	45.9	26.2
Highest quartile	79.4	61.7	40.2	20.5
<b>Children</b>				
None	72.8	56.9	42.0	24.9
One or more	68.7	44.3	44.2	14.1
<b>Race/ethnicity</b>				
Hispanic regardless of race	73.2	48.9	40.0	16.3
Black not of Hispanic origin	86.5	45.4	34.5	11.9
White not of Hispanic origin	70.2	57.6	43.4	27.0
<b>Current marital status&lt;b&gt;</b>				
Single never married	70.9	53.5	42.9	24.9
Married	75.4	60.5	46.2	21.8
In marriage-like relationship	77.7	55.5	32.1	17.9

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993 or were not students and were employed one or more months during 1993.

<b> The category “Divorced/separated/widowed” is not included because there are too few cases for reliable estimates.

**Table 2-9 Average number of weeks attended, and average hours per week by 1988 eighth graders employed in 1993<a> in job-related training in 1993, by selected background characteristics**

	Average number of weeks training was attended in 1993	Average hours per week training was attended in 1993
Total	9.5	23.8
<b>Sex</b>		
Male	12.1	29.0
Female	5.6	16.1
<b>Socioeconomic status (1992)</b>		
Lowest quartile	8.7	21.0
Middle two quartiles	9.8	25.3
Highest quartile	10.3	24.7
<b>Children</b>		
None	9.7	24.1
One or more	8.5	22.4
<b>Race/ethnicity</b>		
Hispanic regardless of race	7.1	23.1
Black not of Hispanic origin	8.9	23.0
White not of Hispanic origin	10.1	24.1
<b>Current marital status&lt;b&gt;</b>		
Single never married	9.2	23.8
Married	11.3	26.5
In marriage-like relationship	8.6	18.7

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993 or were not students and were employed one or more months during 1993.

<b> The category “Divorced/separated/widowed” is not included because there are too few cases for reliable estimates.

**Table 2-10 Percentage of 1988 eighth graders employed in 1993<a> reporting they are very satisfied with various employment conditions and benefits from longest held job in 1993, by selected background characteristics**

	Pay and benefits	Importance	Working conditions	Opportunity for advancement	Opportunity to use education	Security	Opportunities for education
Total	26.0	33.5	41.4	29.5	27.4	42.7	29.5
<b>Sex</b>							
Male	27.5	34.5	39.6	31.6	28.0	43.6	31.0
Female	24.1	32.2	43.8	26.9	26.7	41.6	27.6
<b>Socioeconomic status (1992)</b>							
Lowest quartile 28.8		24.9	32.4	39.7	26.9	25.8	38.6
Middle two quartiles	26.2	33.8	42.0	30.4	27.9	45.5	29.4
Highest quartile 33.1		29.7	35.1	44.2	34.3	30.3	43.7
<b>Children</b>							
None	26.5	33.8	42.0	30.3	27.7	43.2	30.5
One or more	24.3	32.3	39.3	26.8	26.2	40.8	25.6
<b>Race/ethnicity</b>							
Asian or Pacific Islander	32.2	33.2	35.2	34.1	31.6	43.6	30.9
Hispanic regardless of race	25.2	32.9	39.2	29.1	25.6	39.8	31.1
Black not of Hispanic origin	20.9	29.1	32.7	23.0	25.4	30.9	30.1
White not of Hispanic origin	27.0	34.4	43.9	30.7	27.9	45.7	29.1
<b>Education level of father as of 1992</b>							
High school or less	26.8	33.5	43.2	29.5	27.5	44.8	30.7
Trade school after H.S.	27.6	36.4	39.8	31.9	24.6	45.9	27.1
College after H.S.	27.1	38.2	36.1	30.9	32.1	44.2	28.5
Finished college 30.1		30.4	32.5	43.1	33.0	27.4	45.8
Graduate degree 31.4		28.1	38.4	49.0	28.1	25.1	38.4
<b>Education level of mother as of 1992</b>							
High school or less	26.2	33.4	42.0	29.1	27.0	43.3	29.4
Trade school after H.S.	25.5	29.9	42.1	30.6	28.5	47.2	28.0
College after H.S.	27.7	35.9	37.2	29.0	29.8	43.8	29.3
Finished college 38.2		32.3	37.4	47.5	37.8	28.8	45.4
Graduate degree 30.7		22.5	38.2	38.2	33.1	30.2	37.4

**Current marital status**

Single never married	26.9	33.0	41.4	29.4	26.9	41.9	30.9
Married	27.0	39.3	43.0	34.6	35.0	50.9	29.1
Divorced/separated/widowed	16.0	28.7	50.8	20.3	16.4	47.0	18.5
In marriage-like relationship	21.0	30.1	37.5	25.8	22.8	36.5	22.5

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Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

<a> This table is based on 1988 eighth graders whose 1993 labor force status indicated they were students but were primarily employed in 1993 or were not students and were employed one or more months during 1993.

## Expected Occupations and Incomes

The following analyses represent the self-reports for all 1988 eighth graders in 1994 regarding the occupation and income they expected to have at age 30. It may be useful to note that *CPS Trends in Income: 1990-1992* estimates median income of 25-34 year olds in 1992 as \$21,605 for males and \$13,713 for females. By contrast, the NELS:88/94 respondents reported expectations of \$63,719 for males and \$44,683 for females at age 30. It is apparent that the income expectations of the NELS:88/94 respondents are, to say the least, optimistic even taking into account potential inflation by the time they reach age 30. Therefore, the data on income expectations reported below should be considered in terms of relative differences among subgroups rather than absolute dollar amounts.

- 1988 eighth grade women were more likely than 1988 eighth grade men to expect in 1994 to be in a clerical occupation at age 30 (27 percent compared to 4 percent). However, men were more likely than women to report expecting to be craftsmen by age 30 (Table 2-11) (31 percent compared to 4 percent).
- A greater percentage of 1988 eighth grade women than men reported in 1994 that they expected to be school teachers at age 30 (Table 2-11) (16 percent compared to 7 percent).
- A smaller percentage of 1988 eighth graders in the lowest socioeconomic quartile than those in the middle two and highest quartiles expected in 1994 to be school teachers by age 30. (Table 2-11) (9 percent compared to 12 percent and 13 percent).
- In 1994, 1988 eighth graders who were enrolled in high school vocational programs were more likely to expect to be craftsmen by age 30, compared to those in academic or other high school programs (Table 2-12) (36 percent compared to 14 percent and 22 percent).
- 1988 eighth grade men expected in 1994 to have higher incomes by age 30 than did 1988 eighth grade women (Table 2-13) (\$63,157 to \$44,649).
- The 1994 reported average income expected by age 30 was higher for 1988 eighth graders in the highest socioeconomic quartile than for those in the middle two or lowest socioeconomic quartiles (Table 2-13) (\$62,817 compared to \$55,789 and \$46,137, respectively).
- 1988 eighth graders without children by 1994 expected in 1994 to have higher incomes by age 30 than did those with one or more children (Table 2-13) (\$56,031 to \$39,872).
- 1988 eighth grade blacks expected in 1994 to have higher incomes by age 30 than did Hispanics (Table 2-13) (\$66,966 compared to \$48,474).
- 1988 eighth graders who, in 1992, expected to earn a graduate degree also reported higher expected incomes by age 30 in 1994 than those who expected to complete less than four years of college, or to complete high school or less (Table 2-14) (\$61,775 to \$45,961, and \$45,838, respectively).

**Table 2-11 Percentage of 1988 eighth graders reporting in 1994 their expectations to be in different occupations by age 30, by various background characteristics**

	Clerical	Craftsman/Govt./manager/ Skilled operative	Administrator	Military	Proprietor	Protective service	Sales mgmt	School teacher
Total	13.7	19.4	9.5	3.5	10.0	21.8	5.3	11.7
<b>Sex</b>								
Male	3.7	30.6	11.2	5.3	15.1	20.9	6.6	7.0
Female		27.4	4.1	8.0	1.1	5.6	23.0	4.1
15.9								
<b>Socioeconomic status (1992)</b>								
Lowest quartile	14.3	22.9	9.8	2.4	14.9	20.5	3.8	8.9
Middle two quartiles	14.1	20.0	10.8	3.9	10.6	22.4	4.8	12.0
Highest quartile	10.9	8.1	7.5	5.3	5.8	21.8	7.0	13.3
<b>Children</b>								
None	12.2	19.7	9.8	4.2	9.6	21.6	5.5	12.1
One or more	18.9	18.2	7.3	1.5	12.7	22.2	3.8	8.8
<b>Race/ethnicity</b>								
Asian or Pacific Islander	13.4	16.8	10.8	2.1	10.6	19.1	5.7	4.6
Hispanic regardless of race	21.0	18.9	8.1	2.1	11.1	21.2	4.1	12.1
Black not of Hispanic origin	14.8	19.5	7.1	5.1	14.0	26.5	2.5	5.1
White not of Hispanic origin	12.4	19.4	10.1	3.6	9.1	21.7	5.9	13.6
<b>Education level of father in 1992</b>								
High school or less	14.6	22.9	11.4	2.5	12.4	22.0	5.6	10.5
Trade school after high	11.6	19.9	9.9	3.4	9.3	21.6	4.2	14.2
College after high school	11.6	15.8	9.1	4.7	8.7	19.7	5.5	13.6
Finished college	12.4	10.2	8.2	5.2	6.2	26.5	6.3	14.0
Graduate degree	8.2	6.4	6.4	7.7	6.4	20.6	6.5	12.6
<b>Education level of mother in 1992</b>								
High school or less	15.0	21.8	10.7	2.7	11.8	22.6	5.3	11.9
Trade school after high	11.6	19.3	9.2	1.6	7.9	25.4	6.3	12.0
College after high	9.7	10.9	10.2	3.5	7.7	20.9	5.7	9.8
Finished college	13.5	11.9	8.5	5.0	6.7	18.6	5.1	13.3

Graduate degree	7.3	9.1	7.5	8.9	6.1	21.1	5.0	13.1
<b>Current marital status</b>								
Single never married	12.3	20.1	9.3	4.2	9.4	23.0	5.2	12.0
Married	18.8	15.4	12.1	2.3	11.8	18.9	6.5	13.0
Divorced/separated/widowed	11.6	20.7	4.7	0.0	8.8	11.4	9.9	10.9
Marriage-like relationship	17.9	19.0	10.6	1.3	18.2	19.1	3.9	7.0

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Source:NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows do not sum to 100 percent because columns are not exhaustive.

**Table 2-12 Percentage of 1988 eighth graders reporting in 1994 their expectations to be in different occupations by age 30, by selected secondary education characteristics**

	Craftsman/ Clerical	Govt./manager/ Skilled operative	administrator	Military	Proprietor	Protective service	Sales mgmt.	School teacher
Total	13.7	19.4	9.5	3.5	10.0	21.8	5.3	11.7
<b>Last high school program type</b>								
Academic	15.6	14.2	9.3	3.4	7.2	22.7	5.5	13.1
Vocational	11.3	36.2	15.1	0.6	17.0	16.2	6.7	5.5
Other	11.8	22.1	9.2	4.4	14.4	21.8	4.3	10.1
<b>Test quartile (1992)</b>								
Lowest quartile	13.5	20.5	9.3	1.7	19.9	24.5	6.4	8.1
Middle two quartiles	15.5	18.4	10.3	2.5	8.7	23.6	5.8	13.8
Highest quartile	12.7	7.1	8.4	11.2	3.9	15.9	4.2	12.4
<b>High school status (1994)</b>								
Graduate	15.0	17.7	9.4	4.4	8.6	22.2	5.6	12.9
Dropout	8.1	24.3	11.8	0.9	24.1	17.1	3.9	1.2
GED or equivalent	10.9	23.7	7.7	1.7	15.5	24.9	4.3	5.0
<b>Highest level of education expected in 1992</b>								
High school or less	11.2	23.1	12.5	2.1	21.8	17.0	5.6	4.1
Trade/vocational	16.4	30.5	14.9	1.8	19.5	20.3	5.5	4.3
Some college	18.7	17.6	9.5	1.4	16.4	23.5	4.4	10.2
Finish college	13.4	7.9	9.6	4.2	6.6	28.4	5.5	16.9
Graduate degree	13.9	9.4	7.8	11.1	5.0	19.4	5.2	11.9
<b>Highest level of education expected in 1994</b>								
High school or less	8.4	23.6	22.8	1.1	28.5	15.4	5.6	2.1

Trade/vocational	15.0	34.6	13.3	0.3	32.0	22.1	5.2	2.1
Some college	20.4	20.2	10.8	1.5	15.7	22.7	6.8	5.1
Finish college	14.0	11.2	9.5	5.8	10.1	28.9	6.8	13.4
Graduate degree	11.4	6.9	7.3	11.5	4.1	21.4	3.8	14.1

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Source:NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 2-13 Average of 1988 eighth graders' reports in 1994 of expected income at age 30, by selected characteristics**

	<b>Average expected income at age 30</b>
Total	\$54,328
<b>Sex</b>	
Male	63,157
Female	44,649
<b>Socioeconomic status (1992)</b>	
Lowest quartile	46,137
Middle two quartiles	53,789
Highest quartile	62,817
<b>Children</b>	
None	56,031
One or more	39,872
<b>Race/ethnicity</b>	
Asian or Pacific Islander	63,047
Hispanic regardless of race	48,474
Black not of Hispanic origin	66,966
White not of Hispanic origin	52,673
<b>Education level of father as of 1992</b>	
High school or less	48,660
Trade school after high school	51,476
College after high school	63,024
Finished college	59,267
Graduate degree	66,528
<b>Education level of mother as of 1992</b>	
High school or less	49,578
Trade school after high school	57,234
College after high school	63,852
Finished college	65,014
Graduate degree	62,251
<b>Current marital status</b>	
Single never married	57,016
Married	36,602
Divorced/separated/widowed	43,227
In marriage-like relationship	45,018

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

**Table 2-14 Average of 1988 eighth graders' reports in 1994 of expected income at age 30,  
by selected secondary education characteristics**

	<b>Average expected income at age 30</b>
Total	\$54,328
<b>Last high school program type</b>	
Academic	54,546
Vocational	47,239
Other	54,880
<b>Test quartile (1992)</b>	
Lowest quartile	52,358
Middle two quartiles	52,133
Highest quartile	54,932
<b>High school status (1994)</b>	
Graduate	53,878
Dropout	53,300
GED or equivalent	58,297
<b>Highest level of education expected in 1992</b>	
High school or less	45,838
Trade/vocational	49,217
Some college	45,961
Finished college	54,592
Graduate degree	61,775
<b>Highest level of education expected in 1994</b>	
High school or less	46,795
Trade/vocational	44,414
Some college	46,599
Finish college	54,117
Graduate degree	61,666

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95



## Section 3

### Sex, Marriage, and Family

The data reported in this section describe the relationship between various characteristics and marriage, family, and sexual experiences reported in 1994 by the 1988 eighth grade cohort members. These variables provide a context for assessing important factors in the personal development of the cohort as they move beyond high school.

#### Reported Sexual Experiences

- The majority of 1988 eighth graders overall reported having had sexual intercourse by 1994. Women were more likely than men to report that they had not had intercourse by 1994 (Table 3-1) (18 percent to 14 percent).
- A greater percentage of 1988 eighth graders in the lowest socioeconomic quartile reported in 1994 that they had experienced their first sexual intercourse before high school than those in the middle two or highest socioeconomic quartiles (Table 3-1) (26 percent to 17 percent and 9 percent respectively).
- 1988 eighth grade Hispanics, blacks, and whites were more likely to report in 1994 that they had experienced their first sexual intercourse before high school than 1988 eighth grade Asians or Pacific Islanders (Table 3-1) (17 percent, 32 percent, and 15 percent to 8 percent).
- 1988 eighth graders who participated in vocational and other high school programs were more likely to report in 1994 that they had experienced their first sexual intercourse before high school than those who participated in academic high school programs (Table 3-2) (26 percent and 26 percent to 11 percent respectively).
- In 1994, a higher percentage of 1988 eighth graders who had graduated from high school by 1994 reported that they had experienced their first sexual intercourse after high school than those who were high school dropouts or had a GED or equivalent by 1994 (Table 3-2) (15 percent to 4 percent and 3 percent respectively).
- 1988 eighth graders who, in 1992, expected to complete some college after high school, finish college, or earn a graduate degree were more likely to report in 1994 never having sexual intercourse than those who expected only to complete high school or less (Table 3-2) (11 percent, 19 percent, 23 percent to 5 percent respectively).
- Overall reported usage of birth control during first sexual intercourse was high for 1988 eighth grade cohort members. A greater percentage of men than women reported in 1994 not using birth control during their first sexual intercourse (Table 3-3) (29 percent to 25 percent).

- 1988 eighth graders in the highest and middle two socioeconomic quartiles were more likely in 1994 to report having used birth control during their first sexual intercourse than those in the lowest socioeconomic quartile (Table 3-3) (80 percent and 75 percent to 64 percent respectively).
- In 1994, a higher percentage of 1988 eighth graders with children than those without children reported not having used birth control during their first sexual intercourse (Table 3-3) (43 percent to 23 percent).
- 1988 eighth grade Asians/Pacific Islanders, blacks, and whites were more likely in 1994 to report having used birth control during their first sexual intercourse than 1988 eighth grade Hispanics (Table 3-3) (72 percent, 70 percent, and 76 percent to 61 percent respectively).
- 1988 eighth graders in the middle two and highest 1992 test quartiles were more likely in 1994 to report having used birth control during their first sexual intercourse than those in the lowest 1992 test quartile (Table 3-4) (76 percent and 85 percent to 68 percent respectively).
- 1988 eighth graders who were high school dropouts or had a GED or equivalent by 1994 were more likely in 1994 to report not having used birth control during their first sexual intercourse than those who were high school graduates by 1994 (Table 3-4) (48 percent and 44 percent to 22 percent respectively).
- In 1994, a smaller percentage of 1988 eighth graders who, in 1992, expected only to complete high school reported using birth control during their first sexual intercourse than those who expected to complete some college, finish college, or earn a graduate degree (Table 3-4) (60 percent to 73 percent, 80 percent, and 81 percent respectively).
- 1988 eighth graders not married in 1994 in the lowest socioeconomic quartile were more likely in 1994 to report not having used birth control during their last sexual intercourse than those in the middle two or highest socioeconomic quartiles (Table 3-5) (26 percent to 17 percent and 13 percent respectively).
- In 1994, a greater percentage of 1988 eighth graders not married in 1994 who were high school graduates by 1994 reported having used birth control during their last sexual intercourse than those who were high school dropouts by 1994 (Table 3-6) (85 percent to 66 percent).
- 1988 eighth graders not married in 1994 with no 1988 at risk of school failure factors were more likely to report in 1994 having used birth control during their last sexual intercourse than those with two or more 1988 at-risk factors (Table 3-6) (86 percent to 73 percent).

**Table 3-1 Percentage of 1988 eighth graders by timing of first sexual intercourse<a>, by selected background characteristics**

	Never	Before high school	During high school	After high school	Date
<b>unknown</b>					
Total	15.7	17.2	48.4	13.1	5.6
<b>Sex</b>					
Male	13.7	24.0	47.4	10.5	4.5
Female	17.9	10.2	49.3	15.8	6.8
<b>Socioeconomic status (1992)</b>					
Lowest quartile	11.2	25.5	45.7	10.8	6.9
Middle two quartiles	13.9	17.3	50.3	13.1	5.4
Highest quartile	23.6	8.7	47.2	15.5	5.0
<b>Race/ethnicity</b>					
Asian or Pacific Islander	35.3	7.5	34.2	16.1	6.9
Hispanic regardless of race	15.4	17.4	46.9	14.2	6.1
Black not of Hispanic origin	7.4	32.3	45.6	8.6	6.1
White not of Hispanic origin	16.5	14.6	50.0	13.6	5.3
<b>Education level of father as of 1992</b>					
High school or less	11.0	21.1	49.4	12.6	5.8
Trade school after high school	16.0	16.9	47.9	14.3	4.8
College after high school	16.6	13.7	47.0	15.9	6.7
Finished college	23.1	8.2	48.2	15.5	5.0
Graduate degree	25.3	8.0	46.7	15.6	4.4
<b>Education level of mother as of 1992</b>					
High school or less	11.7	20.1	49.7	12.5	6.0
Trade school after high school	17.0	14.1	52.1	12.1	4.7
College after high school	17.6	14.1	47.2	15.2	5.9
Finished college	24.1	9.8	46.3	14.7	5.1
Graduate degree	19.3	12.0	47.3	17.2	4.3
<b>Current marital status</b>					
Single never married	18.9	15.5	46.7	13.4	5.5
Married	0.4	19.9	57.9	15.1	6.7
Divorced/separated/widowed	1.0	53.2	41.9	2.3	1.6
In marriage-like relationship	1.0	26.9	56.9	8.9	6.3

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

<a> Reported in 1994.

**Table 3-2 Percentage of 1988 eighth graders by timing of first sexual intercourse, by selected secondary education and labor force characteristics**

	Never	Before high school	During high school	After high school	Date
<b>unknown</b>					
Total	15.7	17.2	48.4	13.1	5.6
<b>High school sector</b>					
Public	15.3	16.2	49.2	13.6	5.7
Catholic	21.0	12.8	44.7	17.7	3.8
Other private	39.4	3.1	40.1	11.0	6.3
<b>Last high school program type</b>					
Academic	19.3	11.4	48.4	15.9	5.0
Vocational	10.5	26.3	47.8	9.3	6.0
Other	10.4	25.8	49.1	8.8	5.9
<b>Labor force status in 1993</b>					
<i>Postsecondary education student</i>					
Traditional PSE student	26.2	6.5	44.5	17.6	5.2
Part time student not employed	21.4	20.7	37.2	18.0	2.7
Primarily PSE student, also employed	16.4	13.6	50.7	14.9	4.4
Primarily employed, also student	10.5	15.6	56.4	11.8	5.7
<i>Non-student</i>					
Employed 6 months or more	7.2	26.3	50.7	9.5	6.3
Employed 1 to 5 months	8.1	23.4	55.3	7.2	6.0
Unemployed	11.1	37.2	37.5	8.9	5.3
Out of work force	5.9	30.5	49.3	7.2	7.0
<b>Test quartile (1992)</b>					
Lowest quartile	9.1	25.7	48.3	10.9	6.0
Middle two quartiles	15.5	14.6	50.6	14.0	5.4
Highest quartile	28.3	4.6	43.5	19.7	3.9
<b>High school status (1994)</b>					
Graduate	18.6	12.1	48.4	15.1	5.8
Dropout	3.1	40.8	46.7	4.3	5.1
GED or equivalent	1.9	40.0	51.0	3.4	3.8
<b>Highest level of education expected in 1992</b>					
High school or less	4.6	35.3	45.3	7.7	7.1
Trade/vocational	8.5	23.0	53.3	9.7	5.6
Some college	11.3	19.3	50.9	11.9	6.6
Finish college	19.3	12.2	48.8	15.0	4.7
Graduate degree	23.2	8.9	46.6	16.7	4.6
<b>At risk of school failure factors (1988)</b>					
None	19.3	11.8	48.7	15.3	4.9
One	13.2	19.2	50.1	12.0	5.5
Two or more	9.2	26.4	48.4	9.3	6.7

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

<a>Reported in 1994.

**Table 3-3 Percentage of 1988 eighth graders reporting in 1994 that they used birth control during their first sexual intercourse, by selected background characteristics**

	<b>Did use birth control</b>	<b>Did not use birth control</b>
Total	73.2	26.8
<b>Sex</b>		
Male	71.3	28.7
Female	75.3	24.7
<b>Socioeconomic status (1992)</b>		
Lowest quartile	64.2	35.8
Middle two quartiles	75.1	24.9
Highest quartile	79.8	20.2
<b>Children</b>		
None	77.1	22.9
One or more	56.8	43.2
<b>Race/ethnicity</b>		
Asian or Pacific Islander	72.0	28.0
Hispanic regardless of race	60.6	39.4
Black not of Hispanic origin	69.7	30.4
White not of Hispanic origin	76.2	23.8
<b>Education level of father as of 1992</b>		
High school or less	72.0	28.0
Trade school after high school	74.9	25.1
College after high school	75.6	24.4
Finished college	78.4	21.6
Graduate degree	83.0	17.0
<b>Education level of mother as of 1992</b>		
High school or less	71.5	28.5
Trade school after high school	74.8	25.2
College after high school	76.9	23.1
Finished college	79.9	20.1
Graduate degree	79.6	20.4
<b>Current marital status</b>		
Single never married	75.2	24.8
Married	67.4	32.6
Divorced/separated/widowed	46.2	53.8
In marriage-like relationship	66.6	33.4

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-4 Percentage of 1988 eighth graders reporting in 1994 that they used birth control during their first sexual intercourse, by selected secondary education and labor force characteristics**

	Did use birth control	Did not use birth control
Total	73.2	26.8
<b>High school sector</b>		
Public	74.3	25.7
Catholic	78.6	21.4
Other private	87.7	12.3
<b>Last high school program type</b>		
Academic	78.9	21.1
Vocational	68.3	31.7
Other	65.8	34.2
<b>Labor force status in 1993</b>		
<i>Postsecondary education student</i>		
Traditional PSE student	84.3	15.7
Part-time student not employed	73.6	26.4
Primarily PSE student, also employed	79.3	20.7
Primarily employed, also PSE student	72.1	28.0
<i>Non-student</i>		
Employed 6 months or more	68.4	31.6
Employed 1 to 5 months	64.1	35.9
Unemployed	55.8	44.2
Out of work force	48.1	51.9
<b>Test quartile (1992)</b>		
Lowest quartile	67.8	32.2
Middle two quartiles	76.2	23.8
Highest quartile	84.6	15.4
<b>High school status (1994)</b>		
Graduate	78.5	21.5
Dropout	51.5	48.5
GED or equivalent	56.4	43.6
<b>Highest level of education expected in 1992</b>		
High school or less	60.5	39.5
Trade/vocational	66.3	33.7
Some college	73.0	27.0
Finish college	79.7	20.3
Graduate degree	80.7	19.3
<b>At risk of school failure factors (1988)</b>		
None	79.3	20.7
One	71.4	28.6
Two or more	62.4	37.6

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-5 Percentage of 1988 eighth graders not married in 1994 who reported that**

**they used birth control during their last sexual intercourse, by selected background characteristics**

	<b>Did use birth control</b>	<b>Did not use birth control</b>
Total	81.8	18.2
<b>Sex</b>		
Male	82.2	17.8
Female	81.3	18.6
<b>Socioeconomic status (1992)</b>		
Lowest quartile	74.5	25.5
Middle two quartiles	83.3	16.8
Highest quartile	87.1	12.9
<b>Children</b>		
None	83.7	16.3
One or more	71.4	28.6
<b>Race/ethnicity</b>		
Asian or Pacific Islander	78.7	21.3
Hispanic regardless of race	73.0	27.0
Black not of Hispanic origin	81.8	18.2
White not of Hispanic origin	83.5	16.5
<b>Education level of father as of 1992</b>		
High school or less	79.5	20.5
Trade school after high school	85.3	14.7
College after high school	86.8	13.2
Finished college	84.9	15.1
Graduate degree	87.3	12.6
<b>Education level of mother as of 1992</b>		
High school or less	79.6	20.4
Trade school after high school	84.0	16.0
College after high school	85.3	14.8
Finished college	87.8	12.2
Graduate degree	85.4	14.6

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-6 Percentage of 1988 eighth graders not married in 1994 who reported that they used birth control during their last sexual intercourse, by selected secondary education and labor force characteristics**

	Did use birth control	Did not use birth control
Total	81.8	18.2
<b>High school sector</b>		
Public	82.3	17.7
Catholic	88.5	11.5
Other private	91.2	8.8
<b>Last high school program type</b>		
Academic	85.7	14.3
Vocational	78.4	21.6
Other	75.8	24.2
<b>Labor force status in 1993</b>		
<i>Postsecondary education student</i>		
Traditional PSE student	90.3	9.7
Part-time student not employed	86.0	14.0
Primarily PSE student, also employed	86.0	14.0
Primarily employed, also PSE student	80.7	19.3
<i>Non-student</i>		
Employed 6 months or more	75.5	24.5
Employed 1 to 5 months	71.7	28.3
Unemployed	73.9	26.1
Out of work force	68.9	31.1
<b>Test quartile (1992)</b>		
Lowest quartile	76.7	23.4
Middle two quartiles	83.8	16.2
Highest quartile	89.4	10.6
<b>High school status (1994)</b>		
Graduate	84.7	15.3
Dropout	65.8	34.2
GED or equivalent	78.3	21.8
<b>Highest level of education expected in 1992</b>		
High school or less	71.9	28.1
Trade/vocational	77.8	22.2
Some college	79.9	20.0
Finish college	84.9	15.1
Graduate degree	87.8	12.2
<b>At risk of school failure factors (1988)</b>		
None	85.7	14.3
One	81.7	18.3
Two or more	73.2	26.8

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

### Marital Status and Family

- The majority of 1988 eighth graders had never been married by 1994. Men were more likely than women to be single, never married (88 percent to 78 percent). 1988 eighth grade women were more likely than men to be married or in a marriage-like relationship in 1994 (Table 3-7) (13 percent to 6 percent for those married; 8 percent to 5 percent for those in marriage-like relationships).
- Only 1 percent of 1988 eighth graders overall reported that they were divorced, separated, or widowed in 1994. Those in the lowest and middle two socioeconomic quartiles were more likely to be divorced, separated, or widowed by 1994 than those in the highest socioeconomic quartile (Table 3-7) (3 percent and 1 percent to 0.3 percent respectively).
- 1988 eighth grade Hispanics were more likely to be married in 1994 than Asians/Pacific Islanders, blacks, or whites (Table 3-7) (14 percent to 4 percent, 3 percent, and 10 percent respectively).
- 1988 eighth graders who attended public sector high schools were more likely to be married in 1994 than those who attended Catholic high schools (Table 3-8) (9 percent to 2 percent).
- 1988 eighth graders in the lowest 1992 test quartile were more likely to be divorced, separated, or widowed by 1994 than those in the highest test quartile (Table 3-8) (1 percent compared to 0.3 percent).
- 1988 eighth graders who, in 1992, expected to have an education of high school or less, or to attend trade school or to complete some college after high school, were more likely to be married by 1994 (20 percent, 14 percent, and 12 percent respectively) than those who expected to finish college or earn a graduate degree (Table 3-8) (5 percent and 4 percent respectively).
- 1988 eighth grade women were more likely than 1988 eighth grade men to have one child, or two or more children by 1994 (Table 3-9) (16 percent to 8 percent for one child; 6 percent to 2 percent for two or more children).
- 1988 eighth graders in the highest and middle two socioeconomic quartiles were more likely not to have children by 1994 than those in the lowest socioeconomic quartile (Table 3-9) (96 percent and 85 percent to 70 percent respectively).
- 1988 eighth grade Hispanics, and blacks were more likely to have two or more children by 1994 than 1988 eighth grade Asians/Pacific Islanders and whites (Table 3-9) (8 percent, and 9 percent to 2 percent and 2 percent respectively).
- 1988 eighth graders who attended Catholic and other private high schools were more likely not to have children by 1994 than those who attended public sector high schools (Table 3-10) (96 percent and 96 percent to 85 percent).
- 1988 eighth graders from academic high school programs were more likely not to have children by 1994 than those from vocational and other high school programs (Table 3-10)

(92 percent to 79 percent and 72 percent respectively).

- 1988 eighth graders who expected to complete some college after high school, earn a bachelor's degree, or earn a graduate degree were more likely not to have children by 1994 than those who expected in 1992 to have an education of high school or less (Table 3-10) (81 percent, 92 percent and 94 percent to 64 percent).
- 1988 eighth graders with one, or two or more, 1988 at risk of school failure factors were less likely to have no children by 1994 than those with no risk factors (Table 3-10) (84 percent and 70 percent to 91 percent, respectively).
- 1988 eighth grade women were more likely than 1988 eighth gradæmto have children 48 months of age or older by 1994 (Table 3-11) (19 percent to 7 percent).

**Table 3-7 Percentage of 1988 eighth graders by marital status in 1994, by selected background characteristics**

	Single, never married	Married	Divorced, separated, widowed	In marriage-like relationship
Total	82.6	9.3	1.3	6.9
<b>Sex</b>				
Male	87.6	6.0	1.1	5.3
Female	77.5	12.6	1.5	8.5
<b>Socioeconomic status (1992)</b>				
Lowest quartile	72.6	13.9	2.9	10.6
Middle two quartiles	82.5	10.1	1.0	6.4
Highest quartile	92.6	3.6	0.3	3.5
<b>Children</b>				
None	89.6	5.0	0.4	5.0
One or more	45.5	31.8	6.1	16.6
<b>Race/ethnicity</b>				
Asian or Pacific Islander	90.7	4.2	0.5	4.6
Hispanic regardless of race	74.8	14.2	1.4	9.6
Black not of Hispanic origin	89.3	3.2	0.3	7.2
White not of Hispanic origin	82.4	9.7	1.5	6.4
<b>Education level of father as of 1992</b>				
High school or less	76.3	12.9	2.0	8.8
Trade school after high school	85.3	7.4	1.5	5.8
College after high school	86.3	8.8	0.6	4.3
Finished college	91.4	4.7	0.4	3.5
Graduate degree	94.9	2.4	0.1	2.6
<b>Education level of mother as of 1992</b>				
High school or less	77.3	12.3	2.1	8.3
Trade school after high school	87.2	6.8	0.9	5.2
College after high school	86.4	6.6	0.3	6.7
Finished college	92.4	3.9	0.2	3.6
Graduate degree	92.7	3.7	0.6	3.0

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-8 Percentage of 1988 eighth graders by marital status in 1994 by selected secondary education characteristics**

	Single, never married	Married	Divorced, separated, widowed	In marriage-like relationship
Total	82.6	9.3	1.3	6.9
<b>High school sector</b>				
Public	83.3	9.0	1.2	6.5
Catholic	95.6	1.7	0.0	2.7
Other private	91.9	7.3	0.2	0.6
<b>Last high school program type</b>				
Academic	88.5	6.6	0.5	4.4
Vocational	74.8	15.1	0.9	9.1
Other	73.7	12.8	3.0	10.5
<b>Test quartile (1992)</b>				
Lowest quartile	76.6	13.4	1.3	8.8
Middle two quartiles	84.0	8.2	1.5	6.3
Highest quartile	94.2	2.9	0.3	2.6
<b>High school status (1994)</b>				
Graduate	87.2	7.1	0.5	5.2
Dropout	57.1	23.4	5.6	13.9
GED or equivalent	64.6	16.3	5.2	14.0
<b>Highest level of education expected in 1992</b>				
High school or less	62.0	19.8	5.0	13.3
Trade/vocational	74.7	14.1	1.4	9.8
Some college	76.3	12.4	1.6	9.6
Finish college	90.0	5.1	0.6	4.3
Graduate degree	92.2	4.2	0.4	3.2
<b>At risk of school failure factors (1988)</b>				
None	87.1	7.5	0.7	4.8
One	80.6	10.6	1.0	7.8
Two or more	73.6	12.5	3.5	10.4

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-9 Percentage of 1988 eighth graders with none, one, or two or more children by 1994, by selected background characteristics**

	None	One	Two or more
Total	84.1	11.9	4.0
<b>Sex</b>			
Male	90.1	8.3	1.6
Female	78.1	15.6	6.3
<b>Socioeconomic status (1992)</b>			
Lowest quartile	70.5	21.0	8.5
Middle two quartiles	85.2	11.6	3.2
Highest quartile	95.8	3.2	1.0
<b>Race/ethnicity</b>			
Asian or Pacific Islander	92.7	5.3	2.0
Hispanic regardless of race	73.7	18.9	7.5
Black not of Hispanic origin	70.8	20.2	9.0
White not of Hispanic origin	88.2	9.3	2.4
<b>Education level of father as of 1992</b>			
High school or less	79.9	15.4	4.7
Trade school after high school	89.1	8.5	2.4
College after high school	89.9	9.5	0.7
Finished college	93.2	5.0	1.8
Graduate degree	97.1	2.4	0.5
<b>Education level of mother as of 1992</b>			
High school or less	80.1	15.1	4.8
Trade school after high school	88.8	9.5	1.6
College after high school	91.9	6.3	1.8
Finished college	94.8	4.1	1.1
Graduate degree	93.6	3.9	2.5
<b>Current marital status</b>			
Single never married	91.3	6.7	2.1
Married	45.6	39.6	14.8
Divorced/separated/widowed	25.9	55.8	18.4
In marriage-like relationship	61.5	29.3	9.2

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-10 Percentage of 1988 eighth graders with none, one, or two or more children by 1994, by selected secondary education characteristics**

	None	One	Two or more
Total	84.1	11.9	4.0
<b>High school sector</b>			
Public	85.1	11.5	3.4
Catholic	96.2	3.7	0.2
Other private	96.1	3.7	0.3
<b>Last high school program type</b>			
Academic	91.6	7.1	1.4
Vocational	78.7	15.9	5.4
Other	71.7	20.2	8.1
<b>Test quartile (1992)</b>			
Lowest quartile	75.0	18.3	6.7
Middle two quartiles	88.3	9.7	2.0
Highest quartile	97.6	2.3	0.1
<b>High school status (1994)</b>			
Graduate	90.8	8.0	1.2
Dropout	46.9	33.3	19.8
GED or equivalent	61.9	23.1	15.0
<b>Highest level of education expected in 1992</b>			
High school or less	63.8	23.4	12.7
Trade/vocational	72.9	19.4	7.7
Some college	80.9	14.8	4.3
Finish college	92.4	6.2	1.4
Graduate degree	93.6	5.7	0.8
<b>At risk of school failure factors (1988)</b>			
None	90.7	7.4	1.8
One	84.3	11.9	3.7
Two or more	69.5	22.3	8.2

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-11 Percentage of 1988 eighth graders with oldest children different ages by 1994, by selected background characteristics**

	<b>Less than 12 months</b>	<b>12 months to 23 months</b>	<b>24 months to 47 months</b>	<b>48 months or older</b>
Total	16.5	32.4	35.7	15.4
<b>Sex</b>				
Male	18.9	42.9	30.8	7.4
Female	15.4	27.8	37.9	18.9
<b>Socioeconomic status (1992)</b>				
Lowest quartile	15.6	32.5	35.5	16.3
Middle two quartiles	16.3	33.8	37.7	12.2
Highest quartile	23.2	24.2	33.0	19.6
<b>Race/ethnicity</b>				
Asian or Pacific Islander	15.9	34.8	30.1	19.2
Hispanic regardless of race	24.0	25.5	30.4	20.1
Black not of Hispanic origin	13.7	28.9	35.7	21.7
White not of Hispanic origin	15.6	36.6	37.0	10.7
<b>Current marital status</b>				
Single never married	15.4	30.9	36.3	17.5
Married	20.8	29.6	38.8	10.8
Divorced/separated/widowed	5.4	37.2	39.6	17.8
In marriage-like relationship	15.5	40.4	26.5	17.6

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

**Table 3-12 Percentage of 1988 eighth graders with oldest children of different ages by 1994, by selected secondary and postsecondary education characteristics**

	Less than 12 months	12 months to 23 months	24 months to 47 months	48 months or older	
Total	16.5	32.4	35.7	15.4	
<b>High school sector</b>					
Public	17.9	34.3	35.8	11.9	
Catholic	22.9	51.6	21.9	3.6	
Other private	low n	low n	low n	low n	
<b>Last high school program type</b>					
Academic	22.9	37.3	28.4	11.4	
Vocational	19.0	30.4	34.2	16.4	
Other	13.1	30.3	40.8	15.8	
<b>Test quartile (1992)</b>					
Lowest quartile		16.5	30.7	38.5	14.4
Middle two quartiles	18.1	39.1	32.2	10.6	
Highest quartile		35.4	50.8	12.4	1.3
<b>High school status (1994)</b>					
Graduate	23.9	38.4	31.3	6.3	
Dropout	11.8	25.2	40.0	23.0	
GED or equivalent	8.0	25.6	36.4	30.0	
<b>Highest level of education expected in 1992</b>					
High school or less	11.3	32.1	40.6	16.0	
Trade/vocational	13.9	24.8	38.8	22.6	
Some college	15.1	30.9	41.5	12.4	
Finish college	26.4	32.9	34.0	6.8	
Graduate degree		30.7	36.8	24.9	7.6
<b>First postsecondary education intensity and timing</b>					
Full-time before 9/92	27.6	31.2	30.7	10.5	
Part-time before 9/92		29.4	19.2	41.5	9.9
Full-time 9/92 - 8/93	26.9	29.9	32.0	11.2	
Part-time 9/92 - 8/93	23.0	38.9	31.2	6.9	
Full-time after 8/93	12.6	44.9	27.6	14.9	
Part-time after 8/93	14.4	31.0	34.3	20.4	
<b>Valid postsecondary education institutions attended</b>					
None	13.4	32.8	36.9	16.8	
One	24.9	31.2	32.8	11.1	
Two or more	25.2	32.5	30.3	12.0	
<b>Still enrolled in first institution</b>					
Not still enrolled	27.3	28.5	32.3	11.9	
Still enrolled	19.4	38.0	32.8	9.8	
<b>Attendance spells at first postsecondary institution</b>					
Never attended		13.4	32.8	36.9	16.9
Attended once		27.3	30.2	30.7	11.9
Attended twice		7.5	41.1	45.0	6.4
Attended three or more times	low n	low n	low n	low n	
<b>At risk of school failure factors (1988)</b>					

None	20.8	33.2	34.8	11.2
One	18.5	34.0	35.8	11.7
Two or more	14.5	32.0	36.4	17.1

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Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

Note: "low n" indicates too few cases for reliable estimate.

## Dependent Support

- 1988 eighth grade Asians/Pacific Islanders and whites were less likely to provide annual support for another person in 1994 than Hispanics or blacks (Table 3-13) (3 percent and 4 percent to 11 percent and 12 percent, respectively).
- 1988 eighth graders in the lowest socioeconomic quartile were more likely to provide annual support for another person in 1994 than those in the middle two or highest socioeconomic quartiles (Table 3-13) (11 percent to 6 percent and 2 percent respectively).
- 1988 eighth grade men provided more annual support for another person in 1994 than did 1988 eighth grade women (Table 3-13) (\$147 to \$83).

**Table 3-13 Percentage of 1988 eighth graders reporting in 1994 contributing to dependents' support, and average yearly amounts contributed to dependents' support, by selected background characteristics**

	Percentage contributing to dependents' support	Average yearly amount of support provided
Total	5.9	\$115
<b>Sex</b>		
Male	6.9	147
Female	5.0	83
<b>Socioeconomic status (1992)</b>		
Lowest quartile	10.7	191
Middle two quartiles	5.6	121
Highest quartile	2.1	38
<b>Children</b>		
None	4.7	89
One or more	12.6	260
<b>Race/ethnicity</b>		
Asian or Pacific Islander	3.4	44
Hispanic regardless of race	11.3	266
Black not of Hispanic origin	11.7	173
White not of Hispanic origin	4.1	86
<b>Education level of father as of 1992</b>		
High school or less	7.2	143
Trade school after high school	6.1	101
College after high school	2.8	58
Finished college	2.2	62
Graduate degree	3.9	67
<b>Education level of mother as of 1992</b>		
High school or less	7.2	146
Trade school after high school	5.0	69
College after high school	3.2	100

Finished college	2.6	47
Graduate degree	3.6	66

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Source:NCES, National Education Longitudinal Study: 1988-1994 9/25/95

<a> Estimates are averages of all respondents in a given subgroup, including those providing no support (\$0).

## Section 4

### Values, Leisure Time Activities, Volunteer Activities, and Voting Patterns

#### Values

- A higher percentage of 1988 eighth grade men than women reported in 1994 that having lots of money was very important (Table 4-1) (43 percent to 34 percent).
- 1988 eighth graders who attended public high schools were more likely to report in 1994 that having lots of money was very important than those who attended Catholic or other private high schools (Table 4-1) (39 percent to 32 percent and 18 percent respectively).
- A higher percentage of 1988 eighth graders who attended Catholic high schools than those who attended public high schools reported in 1994 that having strong friendships was very important (Table 4-1) (92 percent compared to 86 percent).
- A greater percentage of 1988 eighth graders in the lowest socioeconomic quartile than those in the middle two or highest 1992 socioeconomic quartiles reported in 1994 that having lots of money was very important (Table 4-1) (50 percent compared to 39 percent and 26 percent respectively).
- 1988 eighth graders in the lowest socioeconomic quartile were more likely to report in 1994 that providing their children with better opportunities was very important than those in the middle two or highest socioeconomic quartiles (Table 4-1) (96 percent and 93 percent to 84 percent).
- A higher percentage of 1988 eighth grade blacks than Asians/Pacific Islanders, Hispanics, or whites reported in 1994 that having lots of money was very important (Table 4-1) (58 percent to 41 percent, 44 percent, and 33 percent respectively).
- 1988 eighth grade whites and Asians/Pacific Islanders were more likely than Hispanics or blacks to report in 1994 that having strong friendships was very important (Table 4-1) (91 percent and 87 percent compared to 76 percent and 64 percent respectively).
- 1988 eighth graders who were high school graduates by 1994 were more likely to report in 1994 that having strong friendships was very important than those who were dropouts or who had a GED or equivalent by 1994 (Table 4-1) (88 percent to 72 percent and 80 percent respectively).
- A higher percentage of 1988 eighth grade men than women reported working on hobbies (59 percent to 47 percent) or participating in sports (63 percent to 34 percent) at least once a week on average in 1994 (Table 4-2).

**Table 4-1 Percentage of 1988 eighth graders reporting in 1994 that various values are "very important," by selected background, secondary education, and postsecondary education characteristics**

	Professional employment success	Having lots of money	Having strong friendships	Providing one's children greater opportunity	Being able to find steady work
Total	89.7	38.4	85.5	91.3	89.6
<b>Sex</b>					
Male	89.7	43.0	86.7	90.8	88.9
Female	89.8	33.7	84.2	91.7	90.3
<b>High school sector</b>					
Public	89.9	39.0	85.7	91.7	90.1
Catholic	89.3	32.5	92.2	88.5	88.5
Other private	87.0	18.2	91.8	79.2	83.8
<b>Last high school program type</b>					
Academic	90.3	33.7	88.1	89.8	89.5
Vocational	93.2	48.6	81.4	93.9	93.1
Other	87.5	44.6	82.2	93.2	89.6
<b>Type of first institution</b>					
Private for-profit	95.0	42.9	79.8	95.6	95.3
Private not-for-profit less than 4-yr	90.7	29.3	87.6	93.4	95.2
Public less than 2-year	89.6	32.7	86.8	95.3	61.7
Public 2-year	91.0	37.7	86.6	91.8	90.4
Private not-for-profit 4-year	88.8	22.1	91.6	84.2	87.6
Public 4-year	91.0	27.1	90.9	87.2	88.8
<b>Socioeconomic status (1992)</b>					
Lowest quartile	89.7	50.0	77.9	95.6	92.2
Middle two quartiles	90.4	38.6	86.0	92.9	90.2
Highest quartile	88.4	25.9	92.5	83.8	86.2
<b>Race/ethnicity</b>					
Asian or Pacific Islander	87.2	40.6	86.6	93.3	84.6
Hispanic regardless of race	92.1	43.8	76.1	96.0	91.6
Black not of Hispanic origin	93.4	57.9	64.2	97.1	91.4
White not of Hispanic origin	88.8	33.3	91.2	89.3	89.3
<b>High school status (1994)</b>					
Graduate	90.6	35.1	87.6	90.2	89.9
Dropout	81.3	55.1	72.4	95.6	84.9
GED or equivalent	90.5	48.0	80.3	95.6	87.9
<b>Highest level of education expected in 1992</b>					
High school or less	85.9	51.5	77.5	95.8	86.3
Trade/vocational	89.8	48.6	82.2	95.0	92.6
Some college	90.7	44.5	84.9	94.1	91.4
Finish college	89.3	31.3	88.3	88.9	88.4
Graduate degree	92.0	30.1	89.3	88.3	89.8

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

## Leisure Time Activities

- A greater percentage of 1988 eighth grade women than men reported reading for pleasure (71 percent to 66 percent) or spending time on religious activities (42 percent to 35 percent) at least once a week on average in 1994 (Table 4-2).
- A higher percentage of 1988 eighth grade women than men reported spending time talking to or doing things with parents in 1994 (Table 4-2) (84 percent to 78 percent).
- 1988 eighth graders who attended Catholic and other private high schools were more likely to report spending time on religious activities in 1994 than those who attended public high schools (Table 4-2) (47 percent and 54 percent to 38 percent respectively).
- 1988 eighth graders who attended a private not-for-profit four-year postsecondary institution as their first postsecondary institution were more likely to report spending time on religious activities in 1994 than those who attended private for-profit, public two-year, or public four-year postsecondary institutions (Table 4-2) (50 percent to 34 percent, 41 percent, and 43 percent respectively).
- A higher percentage of 1988 eighth grade blacks than whites reported reading for pleasure in 1994 (Table 4-2) (74 percent to 67 percent).
- 1988 eighth graders who were high school graduates or who had obtained a GED by 1994 were more likely to report reading for pleasure in 1994 than those who were dropouts (Table 4-2) (69 and 77 percent to 58 percent).
- 1988 eighth graders who, in 1992, expected to complete some college or to finish college or earn a graduate degree were more likely to report reading for pleasure at least once a week on average in 1994 than those who expected to complete high school or less (Table 4-2) (70 percent, 69 percent and 72 percent to 61 percent respectively).

**Table 4-2 Percentage of 1988 eighth graders participating in 1994 in various activities at least once a week on average, by selected demographic, secondary education, and postsecondary education characteristics**

	<b>Working on hobbies</b>	<b>Participating in sports</b>	<b>Reading for pleasure</b>	<b>Religious activities</b>	<b>Talking to or doing things with parents</b>
Total	52.9	48.7	68.4	38.3	80.8
<b>Sex</b>					
Male	59.0	63.1	65.8	34.9	78.1
Female	46.8	33.9	71.1	41.8	83.6
<b>High school sector</b>					
Public	53.1	48.3	68.0	38.0	80.9
Catholic	54.9	55.1	69.3	47.2	82.9
Other private	52.9	52.5	76.3	53.6	89.3
<b>Last high school program type</b>					
Academic	53.6	52.1	69.2	41.9	83.5
Vocational	53.5	46.5	63.6	33.8	80.8
Other	52.3	43.1	66.8	32.7	76.6
<b>Type of first institution</b>					
Private for-profit	47.7	35.4	75.2	34.3	78.0
Private not-for-profit less than 4-yr	54.2	42.8	55.1	40.9	79.1
Public less than 2-year	41.3	57.8	74.0	38.4	59.0
Public 2-year	53.6	51.3	70.4	40.8	83.9
Private not-for-profit 4-year	53.1	52.6	69.8	50.4	84.3
Public 4-year	55.3	55.0	68.9	42.7	83.1
<b>Socioeconomic status (1992)</b>					
Lowest quartile	48.5	42.5	65.6	33.4	75.9
Middle two quartiles	53.2	47.8	68.3	37.7	81.5
Highest quartile	57.2	55.7	71.6	44.7	84.1
<b>Race/ethnicity</b>					
Asian or Pacific Islander	54.0	54.7	69.1	40.0	80.7
Hispanic regardless of race	47.1	49.6	72.0	38.4	80.7
Black not of Hispanic origin	42.5	45.7	74.3	47.1	77.4
White not of Hispanic origin	55.8	48.7	67.0	36.6	81.7
<b>High school status (1994)</b>					
Graduate	53.8	50.6	68.8	41.1	82.7
Dropout	43.3	34.9	57.7	19.7	67.2
GED or equivalent	54.6	47.0	76.8	34.5	76.1
<b>Highest level of education expected in 1992</b>					
High school or less	47.9	38.7	61.1	28.1	73.0
Trade/vocational	52.4	41.7	64.5	34.9	85.7
Some college	55.4	47.9	69.5	35.5	82.3
Finish college	53.5	52.2	69.4	42.4	80.3
Graduate degree	53.2	53.6	71.8	45.4	83.4

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

## Volunteer activities

Although in nearly all subgroups the majority of 1988 eighth graders reported in 1994 that they had not done any volunteer work, there were a number of differences in the degree of lack of volunteerism.

- 1988 eighth graders who participated in academic high school programs were less likely to report no volunteer work as of 1994 than those who participated in vocational or other high school programs (Table 4-3) (60 percent to 76 percent and 72 percent respectively).
- 1988 eighth graders who attended private nonprofit four-year and public four-year institutions as their first postsecondary education institutions were less likely to report having done no volunteer work as of 1994 than those from private for-profit postsecondary education institutions (Table 4-3) (42 percent and 52 percent to 76 percent respectively).
- 1988 eighth graders in the middle two and highest socioeconomic quartiles were less likely to report not doing any volunteer work as of 1994 than those in the lowest 1992 socioeconomic quartile (Table 4-3) (68 percent and 48 percent to 77 percent).
- 1988 eighth graders who were high school graduates or had a GED or equivalent by 1994 were less likely to report having done no volunteer work as of 1994 than those who were dropouts (Table 4-3) (62 percent and 74 percent to 87 percent respectively).
- 1988 eighth graders who, in 1992, expected to finish college or earn a graduate degree were less likely to report not having volunteered in any organizations as of 1994 than those who expected to complete high school or less or to go to trade school (Table 4-3) (60 percent and 50 percent to 82 percent and 79 percent, respectively).

**Table 4-3 Percentage of 1988 eighth graders reporting in 1994 the number of organizations to which they volunteered time, by selected demographic, secondary education, and postsecondary education characteristics**

	None	One	Two	Three	Four or more
Total	65.3	23.6	6.8	2.8	1.5
<b>Sex</b>					
Male	65.0	24.5	6.1	3.0	1.4
Female	65.5	22.7	7.5	2.7	1.6
<b>High school sector</b>					
Public	65.4	23.5	6.9	2.8	1.4
Catholic	54.1	28.6	10.0	5.3	2.0
Other private	52.0	32.4	6.7	5.8	3.1
<b>Last high school program type</b>					
Academic	60.2	26.0	8.5	3.3	1.9
Vocational	75.7	19.6	2.6	1.6	0.4
Other	72.3	20.2	4.4	2.3	0.8
<b>Type of first institution</b>					
Private for-profit	76.3	19.1	2.7	1.6	0.2
Private not-for-profit less than 4-yr	56.9	29.1	10.8	2.0	1.1
Public less than 2-year	58.8	38.4	0.0	0.0	2.8
Public 2-year	66.3	22.6	7.1	2.5	1.5
Private not-for-profit 4-year	41.5	33.8	14.9	6.2	3.5
Public 4-year	51.8	31.2	10.0	4.7	2.3
<b>Socioeconomic status (1992)</b>					
Lowest quartile	77.3	16.9	4.1	1.4	0.3
Middle two quartiles	68.1	22.6	5.2	2.8	1.2
Highest quartile	48.3	31.9	12.4	4.4	3.0
<b>Race/ethnicity</b>					
Asian or Pacific Islander	66.2	21.9	6.8	3.4	1.6
Hispanic regardless of race	71.6	19.2	7.0	1.4	0.8
Black not of Hispanic origin	66.8	23.2	5.5	3.5	1.0
White not of Hispanic origin	63.8	24.7	7.0	2.9	1.6
<b>High school status (1994)</b>					
Graduate	61.7	25.3	7.9	3.3	1.7
Dropout	87.3	11.3	0.9	0.3	0.3
GED or equivalent	74.3	21.1	3.2	1.1	0.3
<b>Highest level of education expected in 1992</b>					
High school or less	82.3	14.5	2.0	0.7	0.6
Trade/vocational	79.4	17.1	2.5	0.7	0.3
Some college	74.4	19.1	4.3	1.6	0.6
Finish college	60.3	25.9	8.9	3.4	1.5
Graduate degree	49.8	31.6	10.6	5.2	2.9

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

Note: Rows may not sum to 100 percent due to rounding error.

## Voting Patterns

- 1988 eighth grade men were more likely than 1988 eighth grade women to report being registered to vote as of 1994 (Table 4-4) (71 percent to 65 percent).
- A greater percentage of 1988 eighth graders who attended Catholic high schools reported being registered to vote in 1994 than those who attended public high schools (Table 4-4) (78 percent to 69 percent respectively).
- A higher percentage of 1988 eighth graders who attended public four-year postsecondary education institutions than those who attended private for-profit institutions reported voting in their last local or state election (Table 4-4) (40 percent to 26 percent).
- 1988 eighth graders in the middle two and highest 1992 socioeconomic quartiles were more likely to report being registered to vote as of 1994, voting in the 1992 presidential election, and voting in their last local or state election than those in the lowest 1992 quartile (Table 4-4) (68 percent and 79 percent to 57 percent respectively for voter registration comparisons; 47 percent and 61 percent to 27 percent for 1992 presidential election voting comparisons; and 32 percent and 38 percent to 20 percent for last local or state election voting comparisons).
- 1988 eighth grade blacks and whites were more likely to report being registered to vote as of 1994 than Asians/Pacific Islanders (Table 4-4) (66 percent and 72 percent to 48 percent respectively).
- 1988 eighth grade blacks and whites were more likely to report voting in the 1992 presidential election than Asians/Pacific Islanders or Hispanics (Table 4-4) (38 percent and 51 percent to 27 percent and 29 percent).
- 1988 eighth graders who were high school graduates by 1994 were more likely to report being registered to vote as of 1994, voting in the 1992 presidential election, and voting in their last local or state election than those who were dropouts or had a GED or equivalent in 1994 (Table 4-4) (72 percent to 49 percent and 56 percent respectively for voter registration comparisons; 51 percent to 17 percent and 30 percent respectively for 1992 presidential election voting comparisons; and 34 percent to 10 percent and 23 percent respectively for last local or state election voting comparisons).

**Table 4-4 Percentage of 1988 eighth graders who, in 1994, were registered to vote, voted in the 1992 presidential election, or voted in the last local election, by selected demographic, secondary education, and postsecondary education characteristics**

	<b>Registered to vote</b>	<b>Voted in 1992 presidential election</b>	<b>Voted last year in local or state election</b>
Total	68.1	45.5	30.6
<b>Sex</b>			
Male	71.1	45.4	30.5
Female	64.9	45.5	30.7
<b>High school sector</b>			
Public	69.0	46.5	31.6
Catholic	78.2	56.8	39.5
Other private	66.7	49.8	28.0
<b>Last high school program type</b>			
Academic	73.5	53.0	35.9
Vocational	65.0	37.1	25.5
Other	58.6	34.0	22.5
<b>Type of first institution</b>			
Private for-profit	62.7	36.3	26.5
Private not-for-profit less than 4-yr	62.0	31.8	20.0
Public less than 2-year	72.2	53.5	18.9
Public 2-year	72.5	52.9	36.5
Private not-for-profit 4-year	76.5	57.0	36.2
Public 4-year	80.0	59.8	39.5
<b>Socioeconomic status (1992)</b>			
Lowest quartile	56.9	27.2	20.1
Middle two quartiles	68.2	46.7	32.3
Highest quartile	78.6	60.9	37.7
<b>Race/ethnicity</b>			
Asian or Pacific Islander	48.2	26.8	19.7
Hispanic regardless of race	56.1	29.4	22.6
Black not of Hispanic origin	66.4	37.8	28.7
White not of Hispanic origin	71.5	50.8	33.0
<b>High school status (1994)</b>			
Graduate	72.3	50.7	34.2
Dropout	48.8	17.1	9.9
GED or equivalent	55.8	30.5	23.0
<b>Highest level of education expected in 1992</b>			
High school or less	53.4	26.1	16.8
Trade/vocational	59.5	34.1	25.1
Some college	61.7	39.3	27.4
Finish college	74.7	53.8	34.3
Graduate degree	77.6	59.3	39.0

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

## **Appendices**



## **Appendix A: Technical Notes**



## **Appendix A**

### **Technical Notes**

#### **The National Education Longitudinal Study of 1988: Overview**

The major features of the National Education Longitudinal Study of 1988 (NELS:88) include the integration of student, dropout, parent, teacher, and school studies; initial concentration on a 1988 eighth grade student cohort to be followed over a period of ten years; the inclusion of supplementary components to support analyses of geographically or demographically distinct subgroups; and design linkages to previous longitudinal studies and other current studies.

The Base Year of NELS:88 represented the first stage of a major longitudinal effort designed to provide trend data about critical transitions experienced by students as they leave elementary school and progress through high school and into postsecondary institutions or the work force. This study of the 1988 eighth grade cohort collected data about educational processes and outcomes pertaining to student learning, predictors of dropping out, and school effects on students' access to programs and equal opportunity to learn.

The First Follow-up in 1990 provided the first opportunity for longitudinal measurement of the 1988 baseline sample. It also provided a comparison point to high school sophomores 10 years before, as studied in HS&B. (The NELS:88 sample was freshened in the First Follow-up to represent the tenth grade class of 1990.) The study captured the population of early dropouts (those who leave school between the end of eighth grade and the end of tenth grade), while monitoring the transition of the student population into secondary schooling.

The Second Follow-up took place in 1992, when most sample members entered the second term of their senior year. The Second Follow-up provides a "capstone" measurement of learning in the course of secondary school, and also collects information that will facilitate investigation of the transition into the labor force and postsecondary education after high school. (Freshening the NELS:88 sample to represent the twelfth grade class of 1992 makes trend comparisons with the senior cohorts that were studied in NLS-72 and HS&B possible.) In addition to surveying the students who were in school during the First Follow-up, the NELS:88 Second Follow-up resurveyed students who were identified as dropouts in 1990, and identified and surveyed those additional students who left school after the First Follow-up.

The Third Follow-up took place in the spring of 1994, when most sample members had been out of high school for two years. The 1994 data collection was designed to meet four general requirements for information about American education. These can be characterized as looking backward within the cohort(s) to understand the impact of prior experiences on current circumstances, looking ahead to provide a basis for understanding cohort members' future experiences, looking within the cohort at a single point in time to compare the outcomes and experiences of different social groups, and looking across cohorts by comparing the experiences of the NELS:88 cohort(s) with cohorts separated by one or two decades. Major content areas for the Third Follow-up questionnaire were: education histories; work experience histories; work related training; family formation; opinions and other experiences; occurrence or nonoccurrence of significant life events; and income. The NELS:88 fourth follow-up is slated for 2000.

## **Sample Weighting**

The general purpose of weighting survey data is to compensate for unequal probabilities of selection and to adjust for the effects of nonresponse. Weights are often calculated in several steps. In the first step, unadjusted weights are calculated as the inverse of the probabilities of selection, taking into account all stages of the sample selection process. In the second step, these initial weights are adjusted to compensate for unit nonresponse; such nonresponse adjustments are typically carried out separately within multiple weighting cells. These steps were followed in creating the NELS:88 Third Follow-up weights.

In order to maintain consistency in weights across the various waves and across the various weights within wave, multidimensional raking was also applied when creating NELS:88 weights. In the Third Follow-up, raking was performed with respect to base year school characteristics, race, sex, and status in each of the rounds.

The estimates in this report for the 1988 eighth grade cohort were produced using the 1994 questionnaire weight subsetted for 1988 eighth grade sample members (F3QWTG8).

## **Survey Standard Errors**

Because the NELS:88 sample design involved stratification, the disproportionate sampling of certain strata, and clustered (i.e. multistage) probability sampling, the resulting statistics are more variable than they would have been had they been based on data from a simple random sample of the same size.

The calculation of exact standard errors for survey estimates can be difficult and expensive. Frequently used statistical analysis packages such as SPSS (Statistical Program for the Social Sciences) or SAS (Statistical Analysis System) do not adjust for complex sampling designs of the type used in NELS:88 in the calculation of standard errors. Several procedures are available for calculating precise estimates of sampling errors for complex samples. Procedures such as Taylor Series approximations, Balanced Repeated Replication (BRR), and Jackknife Repeated Replication (JRR) produce similar results.<2> Consequently, it is largely a matter of convenience which approach is taken. For NELS:88, NORC used the Taylor Series procedure to calculate the standard errors. The standard errors for this report were calculated using the Data Analysis System (DAS) developed by NCES. Table A-1, which shows the standard errors for table 4 in the essay, provides an example of the standard errors calculated by the DAS and used in the analyses for this report.

**Table A-1 Standard errors for percentage of 1988 eighth graders in 1992 tested achievement quartile groups, by various characteristics**

	<b>Lowest quartile</b>	<b>Middle two quartiles</b>	<b>Highest quartile</b>
Total	0.74	0.71	0.75
<b>Sex</b>			
Male	1.06	1.04	1.00
Female		0.88	0.970.92
<b>Race/ethnicity</b>			
Asian/Pacific Islander	2.86	2.97	2.70
Hispanic	2.06	2.00	1.22
Black	2.35	2.33	1.15
White	0.73	0.84	0.87
<b>Socioeconomic status (1992)</b>			
Lowest quartile		1.68	1.640.58
Middle two quartiles	0.84	0.88	0.77
Highest quartile		1.11	1.351.44

Source: NCES, National Education Longitudinal Study: 1988-1994 9/25/95

## Data Analysis System

The estimates presented in this report were produced using the NCES Data Analysis System (DAS) for the NELS:88 Third Follow-up. The DAS software makes it possible for users to specify and generate their own tables from the NELS:88 data. With the DAS, users can recreate or expand upon the tables presented in this report. In addition to the table estimates, the DAS calculates appropriate standard errors and weighted sample sizes for the estimates. If the number of valid cases is too small to produce an estimate, the DAS prints the message "low n" instead of the estimate.

In addition to the tables, the DAS will also produce a correlation matrix of selected variables that can be used in linear regression models, and the design effects (DEFT) for all the parameter estimates in the correlation matrix. Since statistical procedures generally compute regression coefficients based on simple random sample assumptions, the standard errors must be adjusted with the design effects to take into account the complex sampling procedures used in the NELS:88 surveys. For more information about the NELS:88 Third Follow-up DAS, contact:

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## Statistical Procedures

Comparisons that have been drawn in the text of this report have been tested for statistical significance to ensure that the differences are larger than those that might be expected due to sampling variation. The statistical comparisons in this report were based on the *t* statistic. Generally, whether the statistical test is considered significant or not is determined by calculating a *t* value for the difference between a pair of means or proportions and comparing this value to published tables of values at certain critical levels, called "alpha levels." The alpha level is an *a priori* statement of the probability that a difference exists in fact rather than by chance.

To guard against errors of inference based upon multiple comparisons, the Bonferroni procedure<sup>4</sup> to adjust significance tests for multiple contrasts was used. This method corrects the significance (or alpha) level for the total number of contrasts made with a particular classification variable. For each classification variable, there are  $(K*[K-1])/2$  possible contrasts (or nonredundant pairwise comparisons), where *K* is the number of categories. For example, if a classification variable such as race has five categories, *k*=5 and there are  $(5*4)/2=10$  possible comparisons between the categories. The Bonferroni procedure divides the alpha-level for a single *t*-test (in this case, 0.05) by the number of possible pairwise comparisons (10) to derive a new alpha corrected for the fact that multiple contrasts are being made. For all of the tables in this report, the Bonferroni adjustment is applied on a variable by variable basis, adjusting for the number of possible comparisons among the subgroups defined by a single row variable.

The *t* statistic between estimates from various subgroups presented in the tables can be computed by using the following formula:

$$t = (X1-X2)/SQRT(SE1^2+SE2^2)$$

where *X1* and *X2* are the estimates to be compared and *SE1* and *SE2* are their corresponding standard errors.

## Nonresponse Bias Analysis

Comparisons were made between subgroups defined on the basis of whether the respondent had complete data for the critical variables used in this report. The purpose of this analysis is to assess whether there is a significantly greater proportion of missing cases in a particular subgroup which might account for apparent between group differences.

A case was classified as "valid" for a given variable if the respondent had an in-scope response code (including "don't know"), and as "missing" if the response code corresponded to "missing" or "refused." Respondents classified as "legitimate skip" for a given variable were excluded from the analysis of that variable. The distribution of valid and missing cases was broken down by sex, race/ethnicity, socioeconomic status, school type, and 1994 diploma status.

The nonresponse bias analysis was conducted for 15 critical variables used in the Descriptive Summary Report and was based on all NELS:88/94 respondents. The complete results can be found in Section 5.6 of the NELS:88/94 Methodology Report.

The results shown in Table A-2 below illustrate this analysis. The analysis is accomplished

by comparing the percentage "missing" to the percentage "valid" for a given subgroup. For example, for months unemployed in 1993 (UNEMPL93), public school students constitute a greater percentage of the missing group (97.5 compared to 91.1). The same is true for low SES respondents (41.7 percent compared to 24.5 percent) and for dropouts (20.8 percent compared to 7.3 percent). A higher percentage of valid respondents is accounted for by Catholic school students and students of "other private" schools (this pattern was observed for a several of the variables in the nonresponse bias analysis); the same was true for whites, respondents with diplomas, and high SES respondents. None of the other comparisons in this table are statistically significant. The differences observed in the nonresponse bias analysis in, for example, 1992 high school sector, may indicate that differences in unemployment between subgroups defined on high school sector may be due, at least in part, to differential response rates.

**Table A-2 Bias analysis for months unemployed in 1993**

	Percent valid	Standard error for valid	Percent missing	Standard error for missing	t-value<a>	
Total	99.1	0.11	0.9	0.11		
<b>Sex</b>						
Male	50.6	0.63	55.9	5.78	-0.90	
Female		49.4	0.63	44.1	5.78	0.90
<b>Race/ethnicity</b>						
Asian/Pacific Islander	3.9	0.30	3.7	1.27	0.20	
Hispanic	11.3	0.83	14.3	3.47	-0.83	
Black	13.6	0.81	28.3	5.65	-2.58	
White	69.7	1.18	50.7	5.99	3.12	
<b>High school sector</b>						
Public		91.1	0.64	97.5	1.09	-5.10
Catholic	5.1	0.40	1.8	0.96	3.13	
Other private	3.8	0.50	0.6	0.50	4.51	
<b>High school diploma status (1994)</b>						
High school diploma	81.1	0.66	58.4	5.62	4.01	
GED or equivalent	6.3	0.41	9.4	2.45	-1.24	
Working toward diploma	5.3	0.31	11.5	4.32	-1.41	
Dropout	7.3	0.43	20.8	4.61	-2.92	
<b>Socioeconomic status (1992)</b>						
Lowest quartile		24.5	0.77	41.7	5.82	-2.93
Middle two quartiles	50.3	0.75	46.8	5.93	0.58	
Highest quartile		25.2	0.91	11.5	3.84	3.47

Source: NCES, National Education Longitudinal Study: 1988-1994

<a> This t-value compares the percent valid to the percent missing for a given row variable.

## Endnotes

- <1> The process referred to here as "freshening" added students who were not in the base year sampling frame, either because they were not in the country or because they were not in eighth grade in the spring term of 1988. The 1990 freshening process provided a representative sample of students enrolled in tenth grade in the spring of 1990. The 1992 freshening process provided a representative sample of students enrolled in twelfth grade in the spring of 1992. Section 3.3.3 of Ingels et al. (*NELS:88 Second Follow-up Student Component Data File Users' Manual*) provides a detailed description of the freshening process.
- <2> Frankel, M.R., *Inference from Survey Samples: An Empirical Investigation* (Ann Arbor: Institute for Social Research, 1971).
- <3> The NELS:88 sample is not a simple random sample, and techniques for estimating standard errors that are appropriate for simple random samples will not produce accurate standard errors for these data. The DAS takes into account the complex sampling procedures and calculates standard errors that are appropriate for such samples. The method for computing sampling errors used by the DAS involves approximating the estimator by the linear terms of a Taylor series expansion. This procedure is typically referred to as the Taylor series method.
- <4> For detailed discussion, see, for example, Hays, W.L. (1988) *Statistics*. (4th ed.) New York: Holt, Rinehart, Winston.

## **Appendix B: Glossary**



## Glossary

This glossary describes the variables used in this report. The items were taken directly from the National Education Longitudinal Study: 1988-1994 Data Analysis System (DAS), a NCES software application that generates tables directly from the data files.

The variables and definitions are divided into five categories: demographic and status variables, postsecondary education variables, labor force experience variables, family experience variables, and civic participation, values, and personal time variables.

### Personal Characteristics

#### *Sex (F3SEX)*

Female  
Male

#### *Race/ethnicity (F3RACE)*

Asian or Pacific Islander A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or Pacific Islands. This includes people from China, Japan, Korea, the Philippine Islands, Samoa, India, and Vietnam.

Hispanic regardless of race A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Black not of Hispanic origin A person having origins in any of the black racial groups of Africa, except those of Hispanic origin.

White not of Hispanic origin A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).

#### *Current marital status (F3MARST)*

Single, never married Respondent had never been married.

Married Respondent was married at the time of the interview.

Divorced/separated/widowed Respondent had been married but was either divorced or separated, or the spouse had died.

In marriage-like relationship Respondent reported living with a partner but not being married.

#### *Children (NUMCHILD)*

None	No children born to the respondent
One or more	At least one child born to the respondent

*Socioeconomic status in 1992 (F2SESIC)*

The socioeconomic status (SES) index is a composite of five equally weighted, standardized components: father's education, mother's education, family income, father's occupation, and household items. The terms high, middle two, and low SES refer to the upper, middle two, and lower quartiles of the weighted SES composite index distribution.

Lowest quartile	Students in the first through 24th percentile
Middle two quartiles	Students whose percentile rank ranged from 25 to 74 percent.
Highest quartile	Students whose percentile rank ranged from 75 to 99 percent.

*Financial support for others (AMTSUPRT)*

Respondents were asked if they contributed to anyone else's support, such as grandparents, aunts or other relatives, regardless of whether they currently lived with that relative. Respondents were also asked to estimate this contribution annually.

No	No financial support for others
Yes	Financial support for at least one other.

*Alcohol consumption during lifetime in 1992 (F2S81A)*

Respondents were asked in 1992 to report their lifetime consumption amount for alcohol.

- No occasions
- One or two occasions
- Three to nineteen occasions
- Twenty or more occasions

*Cocaine or crack use during lifetime in 1992 (F2S84A)*

Respondents were asked in 1992 to report their lifetime consumption amount for cocaine.

- No occasions
- One or two occasions
- Three to nineteen occasions
- Twenty or more occasions

**Family characteristics**

*At risk of school failure factors in 1988 (BYATRISK)*

This variable measures how many of the "at risk of school failure" factors were present for the sample members in 1988. The factors include: parent is single, parent has no high school diploma, limited English proficiency, income less than \$15,000, sibling dropped out of high school, and home alone more than three hours a day.

- |             |                                  |
|-------------|----------------------------------|
| None        | No risk factors                  |
| One         | One risk factor present          |
| Two or more | Two or more risk factors present |

*Education level of father as of 1992 (F2N8A)*

- |                                |   |
|--------------------------------|---|
| High school or less            | The highest level of education completed by the father was a high school diploma or equivalent or less. |
| Trade school after high school | Father attended trade school after high school  |
| College after high school      | Father attended college after high school.  |
| Finished college               | Father attained a college degree.   |
| Graduate degree                | Father attained a graduate degree.  |
| Do not know                    | Respondent did not know father's educational background.  |

*Education level of Mother as of 1992 (F2N8B)*

- |                                |   |
|--------------------------------|---|
| High school or less            | The highest level of education completed by the mother was a high school diploma or equivalent or less. |
| Trade school after high school | Mother attended trade school after high school.   |
| College after high school      | Mother attended college after high school.  |

Finished college	Mother attained a college degree.
Graduate degree	Mother attained a graduate degree.
Do not know	Respondent did not know mother's educational background.

## Education Variables

### *Last high school program type (F3HSPROG)*

Three types of programs are distinguished: academic, vocational, and "other." An academic program is designed to prepare students for continued study at a four-year college or university. A vocational program is designed to prepare students for employment in one or more semi-skilled, skilled, or technical occupations. Programs classified as "other" are designed to provide students with the understanding and competence to function effectively in society and usually represent a mixture of academic and vocational components. Also included in this classification are personal use programs which provide students with general skills in areas such as health, religion, and military science. For the purposes of NELS:88/94, the last two categories have been combined into a "vocational/other" category.

The variable F3HSPROG (Last high school program type) was derived from the 1992 transcript data when available. Otherwise, the self-reported high school program type was used.

Academic	Academic program type
Vocational/Other	Vocational or "other" program type

### *High school sector (F2SCHTYP)*

Public	An educational institution whose programs and activities are operated by publicly elected or appointed school officials and which is supported primarily by public funds.
Catholic	A private school over which a Roman Catholic church group exercises some control or provides some form of subsidy. Catholic schools for the most part include those operated or supported by: a parish, a group of parishes, a diocese, or a Catholic religious order.
Other private	An educational institution controlled by a private individual(s) or by a nongovernmental agency, usually supported primarily by other than public funds, and operated by other than publicly elected or appointed officials.

*1994 High school status (F3DIPLOM)*

1994 Graduate	Students who received formal recognition for the successful completion of a prescribed program of studies before the 1994 data collection.
Dropout	Students are not in school and are not graduates.
GED or equivalent	Students who obtained certification of high school equivalency by meeting state requirements and passing an approved exam, which is intended to provide an appraisal of the person's achievement or performance in the broad subject matter areas usually required for high school graduation.
Enrolled in high school	Students who have not yet completed a high school diploma, GED, or equivalent, and were actively enrolled in high school.
Working towards equivalency	Students who have not yet completed a high school diploma, GED, or equivalent, and were actively engaged in the pursuit of a GED or equivalent certificate.

*1992 Test quartile (F22XCEN)*

The source for this variable was the composite variable consisting of math and reading NELS Second Follow-up test scores. To create the derived variable, a ranking was created by first calculating a weighted frequency distribution of test composite variables. Next, cutoff points were determined and numbered sequentially from 1 to ninety-nine. The first cutoff point defined the lowest 1.5 percent of the population. Each subsequent cutoff point defined an additional 1 percent. The final cutoff point (assigned the value of 99) determined the last 1.5 percent of the population.

For the purposes of this report, centile values were converted to quartiles. This set of cutoffs was intended to produce an approximately symmetric division of the sample, with 50 percent in the middle grouping and 25 percent in the upper and lower tails of the distribution. The actual breakdown deviates from this intention for two reasons. First, the underlying centile scores are expressed as integer values. Thus, any regrouping into quartiles will only be approximate. Second, the centile ranking was constructed using the Second Follow-up questionnaire weight. Thus, analyses using the Third Follow-up sample and weight will also produce a degree of asymmetry when quartiles are defined. Nonetheless, the observed deviation was not dramatic, resulting in a lower quartile that is slightly more exclusive (23.4 percent) and an upper quartile that is slightly more inclusive (26.5 percent).

Lowest quartile	Students whose percentile rank ranged from 1 to 24 percent.
Middle two quartiles	Students whose percentile rank ranged from 25 to 74 percent.
Highest quartile	Students whose percentile rank ranged from 75 to 99 percent.

*Type of First Institution (F3SEC2A1)*

Private for profit	A private for-profit institution is a postsecondary institution that is privately owned and operated as a profit-making enterprise. Includes career colleges and proprietary institutions.
Private not-for-profit less than 4-year	A private not-for-profit institution offering a less-than-four-year degree and controlled by an independent governing board and incorporated under section 501(c)(3) of the Internal Revenue Code.
Public less than 2-year	A public less-than-two-year (vocational-technical) postsecondary institution is supported primarily by public funds and operated by publicly elected or appointed officials who control the school's program and activities.
Public 2-year	A public institution offering a two- to three-year degree (i.e., associate's degree).
Private not-for-profit 4-year	A private not-for-profit college or university offering bachelor's degree or higher.
Public 4-year	A public college or university offering a bachelor's degree or higher.

*First postsecondary education intensity and timing (PSEBEGST)*

This variable was constructed from respondents answers about their level of enrollment when they began their postsecondary studies at their first institution.

- Full-time before 9/92
- Part-time before 9/92
- Full-time 9/92-8/93
- Part-time 9/92-8/93
- Full-time after 8/93
- Part-time after 8/93

*Valid postsecondary education institutions attended (F3PSENUM)*

This variable counts the number of postsecondary institutions named by the respondents excluding military training programs.

- None
- One
- Two or more

*Highest level of education expected in 1988 (BYS45)*

*Highest level of education expected in 1992 (F2ASPIRE)*

*Highest level of education expected in 1994 (EDEXPECT)*

This set of variables was coded as follows:

High school or less      Student expected to complete high school or less.

Trade/vocational      Student expected to complete trade or vocational school.

Some college              Student expected to complete some college.

Finish college            Student expected to attain a bachelor's degree.

Graduate degree      Student expected to attain a graduate degree.

Do not know              Student was unsure of expectations.

However, for the purposes of the essay on access and choice, the categories were recoded (lumped) as follows:

High school or less      Student expected to complete high school or less.

Trade/vocational      Student expected to complete trade or vocational school.

Some college              Student expected to complete some college.

Bachelor's or more      Student expected to attain at least a bachelor's degree.

**Employment Variables**

*Labor force status in 1993 (LABFOR93)*

Traditional postsecondary education student      Respondent was a student in a postsecondary institution during the traditional school months (i.e., not including the summer months).

Part-time student                                      Respondent was a student not employed during part

but not all of the school year and was not employed during the year.

Primarily postsecondary education student, also employed      Respondent was both a student during part of the school year and employed during the year but indicated that he or she was primarily a student.

Primarily employed, also student      Respondent was both a student during part of the school year and employed during the year but indicated that he or she was primarily employed.

Employed six months or more      Respondent was employed for at least six months and not a student during the year.

Employed one to five months      Respondent was employed for at least one and less than six months and not a student during the year.

Unemployed      Respondent was not a student and unemployed or out of the work force throughout the year.

Out of work force      Respondent was not a student and out of the labor force (i.e., never unemployed) throughout the year. This category includes homemakers and discouraged workers who are not looking for work.

To define populations for analysis in section 2 of the table compendium, the above categories were combined as follows:

Employed in 1993      Includes respondents in the categories: primarily employed, also student; employed six months or more; and employed one to five months.

In labor force in 1993      Includes respondents in the categories: primarily employed, also student; employed six months or more; employed one to five months; and unemployed.

*Industry of longest held 1993 job (INDCODE2)*

To arrive at these categories, respondents' verbatim answers were coded during the interview using abbreviated industry codes.

Agriculture or forestry  
Mining  
Construction  
Manufacture of durable goods  
Manufacture of nondurable goods

Transport or communication or utility  
Wholesale trade  
Retail trade  
Finance or insurance or real estate  
Business and repair services  
Personal services  
Entertainment or recreation  
Professional and related services  
Public administration  
Military

*Total earnings from jobs in 1993 (TOTLEAR2)*

Respondents were asked how much they earned from all jobs they held between January and December 1993.

None	Respondent had no income in 1993.
Lowest quartile	Respondent's reported income percentile rank ranged from 1 to 24 percent.
Middle two quartiles	Respondent's reported income percentile rank ranged from 25 to 75 percent.
Highest quartile	Respondent's reported income percentile rank ranged from 76-99 percent.

**Postsecondary Education Variables**

*Number of applications to postsecondary institutions (NUMAPL)*

Zero	Student applied to no postsecondary education institutions.
One	Student applied to one postsecondary education institution.
Two or more	Student applied to two or more postsecondary education institutions.

*Importance of college expenses (F2S59A)*

*Importance of financial aid (F2S59B)*

*Importance of attending college and living at home (F2S59F)*

*Importance of low crime environment (F2S59I)*

*Importance of college reputation (F2S59L)*

For the preceding five variables, students were asked to rate each for how important a consideration it was in choosing a postsecondary institution. Response categories included "not important," "somewhat important," and "very important." For the purposes of this report these ratings were collapsed into "very important" and "less than very important."

Very Important	Student responded this factor was very important in choosing a postsecondary institution.
Less than very important	Student responded this factor was "somewhat important" or "not important" in choosing a postsecondary institution.

*Number of postsecondary institutions attended (NUMATND1)*

This variable was derived from respondents' answers about attendance spells at their first postsecondary education institution. If no attendance spells were reported for this "first institution," the respondent was coded as never having attended a postsecondary institution. If there was at least one attendance spell, then the respondent did attend a postsecondary institution at least once. Note that this variable does not index the duration of the attendance spell(s), nor does it index the number of institutions a respondent attended.

No postsecondary education	No attendance spells at first PSE institution
One postsecondary institution	One or more attendance spells at first PSE

*In state at first postsecondary institution (PSEFIRIO)*

In state	Student attended first postsecondary institution in home state.
Different state	Student attended first postsecondary institution outside of home state.

*Still at first institution (F3STILL)*

This variable was derived from respondents' answers about start and end dates at first postsecondary institution.

Not still enrolled in first institution
Still enrolled in first institution

*Enrollment status (ENRLSTA1)*

Full-time	Student was enrolled in postsecondary institution full-time.
Half-time	Student was enrolled in postsecondary institution half-time.
Less than half-time	Student was enrolled in postsecondary institution less than half-time.

**Labor Force Experience Variables**

*Number of jobs held in 1993 (NUMJOBS2)*

Respondents who indicated they were employed in 1993 were asked to enumerate the number of jobs they had held. For the tables presented in this report, means were calculated.

*Months unemployed in 1993 (UNEMPL93)*

Respondents who indicated they were unemployed in 1993 were asked to enumerate the number of months they were unemployed. For certain tables presented in this report, means were calculated.

*1994 expectations for job at age 30 (OCCFUTCD)*

Respondents were asked to describe their job expectations at age 30 and their responses were recoded into the following occupation codes.

- Clerical
- Craftsman
- Farmer or farm manager
- Laborer
- Manager/administrator
- Military
- Skilled operative
- Professional
- Proprietor
- Protective service
- Sales
- School teacher
- Service
- Technical
- Homemaker/not working outside home
- Do not know

### *Expected income at age 30 (EXPTINCM)*

Respondents were asked what income they expected to earn by age 30. For the tables presented in this report, averages were calculated.

### **Employer Provided Benefits and Training Opportunities Variables**

For each of the following, respondents were asked whether the job they held the longest in 1993 offered the indicated benefit or training opportunity (response categories for all, Yes/no).

*Medical benefits (EMPBMED)*  
*Dental benefits (EMPBDENT)*  
*Life insurance (EMPBLIFE)*  
*Sick days with pay (EMPBSICK)*  
*Paid vacation (EMPBVAC)*  
*Paid maternity or paternity leave (EMPBLEAV)*  
*Unpaid maternity or paternity leave (UNPDLEAV)*  
*Pension plan (EMPBPENS)*  
*Child care assistance (EMPBCHLD)*  
*Unpaid leave to care for others (UNPADOTH)*  
*On-site formal training received (EMPTRAN1)*  
*Informal on-the-job training received (EMPTRAN2)*  
*Off-site formal training received (EMPTRAN3)*  
*Employer-provided tuition assistance received (EMPTRAN4)*

*Total weeks training was attended in 1993 (NUMWKSTN)*

Respondents were asked to count the total number of weeks they spent in training in 1993.

*Hours per week training was attended in 1993 (HRSPWKTR)*

If respondents attended training in 1993, they were asked to report the average number of hours per week they spent in this training.

### **Employee Satisfaction Variables**

Respondents were asked to indicate their satisfaction with the following variables using the following response categories: very satisfied, somewhat satisfied, not satisfied.

*Pay and benefits (PAYFRNGE)*  
*Importance (IMPRTCHA)*  
*Working conditions (WRKCNDT)*  
*Opportunity for advancement (OPROMOT)*  
*Opportunity to use education (OUSTRAIN)*  
*Job security (JOBSECTY)*  
*Opportunities for education (FURTHED)*

### **Family Characteristics Variables**

### *Age of first child (DOBCHLD1)*

This variable was derived from the respondents' answers about the month and year their first child was born.

- Less than 12 months
- From 12 months to 23 months
- From 24 months to 47 months
- 48 months or older

### **Sexual Experience Variables**

#### *First sexual intercourse (FIRSTSEX)*

Respondents were asked about their first sexual intercourse. The categories were derived from questions about year, month, and age.

- |                    |  |
|--------------------|--|
| Date unknown       | Respondents indicated they did not know the date of their first sexual intercourse.          |
| Never              | Respondents indicated they had never engaged in sexual intercourse.                          |
| Before high school | Respondents whose first sexual intercourse occurred before they enrolled in high school.     |
| During high school | Respondents whose first sexual intercourse occurred while they were enrolled in high school. |
| After high school  | Respondents whose first sexual intercourse occurred after attending high school.             |

#### *Use of birth control during first sexual intercourse (USEBIRCN)*

Respondents who had sexual intercourse by the time of the 1994 interview were asked whether they used birth control during their first sexual intercourse to prevent pregnancy or sexually transmitted disease.

- |                           |  |
|---------------------------|--|
| Did not use birth control | Respondent reported not using birth control during first sexual intercourse. |
| Did use birth control     | Respondent reported using birth control during first sexual intercourse.     |

#### *Use of birth control during last sexual intercourse (BC1M1)*

Respondents who had sexual intercourse by the time of the 1994 interview and were not married were asked whether they used birth control during their last sexual intercourse to prevent pregnancy or sexually transmitted disease.

Did not use birth control      Respondent reported not using birth control during last sexual intercourse.

Did use birth control      Respondent reported using birth control during last sexual intercourse.

### **Civic Participation Variables**

#### *Number of volunteer organizations (F3VOLUNT)*

Respondents were given examples of volunteer organizations and the number of organizations at which the respondents indicated having volunteered over the past year was coded.

- None
- One
- Two
- Three
- Four or more

### **Personal Values**

Respondents were asked to indicate how important the following variables were using the scale: very important, somewhat important, not important.

*Professional employment success (SUCSLWRK)*

*Having a lot of money (LOTSMONEY)*

*Having strong friendships (STRGFRND)*

*Providing children with a better opportunity (CHLDOPTY)*

*Being able to find steady work (STDYWORK)*

For the purposes of this report these ratings were collapsed into "very important" and "less than very important."

Very Important      Student responded this factor was very important.

Less than very important      Student responded this factor was "somewhat important" or "not important."

### **Personal Time Variables**

Respondents were asked to indicate whether in an average week they participated in the following activities one or more times.

*Working on hobbies (HOBBIES)*

*Participating in sports (PARSPORT)*

*Reading for pleasure (READING)*

*Religious activities (RELIGION)*

*Talking to or doing things with parents (TALKPARN)*